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Painting done by
Harold Goodhue Williams
Also lettering

Botanical Description

AND

Medical, Culinary & other Uses of the Plants in the first Volume

OF MY

American Herbarium

Principally Compiled from the latest & Most approved Writers on Botany

and

MATERIA MEDICA

By

Stephen W. Williams

Fellow of the Massachusetts Medical Society & Corresponding Member of the Physico Medical Society New York.

"Seek science in her cozy abode."

1817.

Robert John Thornton. M.D.

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N.B. The first column of figures refers to the plants in my American Herbarium, the second to the description of these plants in this volume.

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Wood Anemone	21	54			
White Weed	23	83			
Willow Herb (spice 2nd)	29	140			
Woodbine ~~Honeysuckle~~	43	68			
White topped Aster	47				
Willow cone bearing	104				
Winter Cherry	112	143			
Water Horehound	146	31			
Water Agrimony	156	31			
Wild Rose	156	135			
Water Crowfoot	160	54			
Wild Basil	192				
White Vervain	194	56			
Wild Corn, or Jupiter grass	232				
Wormwood Roman	236				
Wormwood Common	238	82			
White Cedar	252				
Waxwork	274	131			
Wintergreen Chick leaved	274				
~~White leaved Viburnum~~	368				
Water Plantain	96	85			
Wood Sorrel	29	135			
Water Vetch	210	138			
Wickuck	29	140			

Outline of the Linnæan System of Botany—

From Hosack's Hortus Elginensis—

Organs of Fructification.

1. Calyx, or flower cup.
2. Corolla, or blossom.
3. Stamen, or male organ; consisting. 1. Filamentum, or filament.
   2. Anthera, which contains,
   3. Pollen, or fecundating dust.
4. Pistillum, or female organ; consisting 1. Germen, containing the embryo of the future plant
   2. Style, or tube leading to the germen
   3. Stigma, the top or aperture of the style
5. Pericarpium, or seed vessel.
6. Semina, or seeds.
7. Receptaculum, or receptacle upon which the preceding parts are supported.

Such flowers as have only stamina, are denominated Flores masculi, or male flowers.
Such as have only pistilla Flores fœminea, or female flowers
Such as have both stamina & pistilla in the same flower, Flores hermaphroditi, hermaphrodite flowers.

Subdivisions of the Calyx.

Every calyx is either Monophillous consisting of one leaf or Polyphillous more than one leaf. Calyxes are:

1. Spianth.
2. Involucre.
3. Spathe.
4. Glume.
5.Ament.
6. Calyptra
7. Volva.

Subdivisions of the Corol.

Monopetalous or one petalled corols are.

1. Bell-form.
2. Funnel-form
3. Salver-form.
4. Wheel-form.
5. Labiate.

Polypetalous or more than one petal are:

1. Cruciform.
2. Caryophillous.
3. Liliaceous.
4. Rosaceous.
5. Papillionaceous.

If the corol agrees with the discriptions of none of the above, it is Anomalous.

Subdivisions of the Stamen.

1. Anther.
2. Pollen.
3. Filament.

Subdivisions of the Pistil.

1. Stigma.
2. Germ.
3. Style.

Subdivisions of the Pericarp.

1. Silique.
2. Legume.
3. Capsule.
4. Drupe.
5. Pome.
6. Berry.
7. Strobile.

Subdivisions of the Seed.

1. Corcle.
2. Cotyledons.
3. Tegument.
4. Hilum.

Subdivisions of the Receptacle.

1. Proper.
2. Common.
3. Rachis.
4. Columella.
5. Placenta.

General Divisions of Flowers.

1. Simple.
2. Aggregate.
3. Compound.

Inflorescence:

Of the manner in which flowers are situated upon plants.

1. Whorl.
2. Raceme.
3. Panicle.
4. Thyrse.
5. Spike
6. Umbel.
7. Cyme.
8. Corymb.
9. Fascicle.
10. Head.

Roots & Herbage.

The ~~out~~ substance of roots & herbage consists of

1. Cuticle
2. Cellular integument
3. Bark.
4. Camb.
5. Wood. 6. Pith

Roots are the descending parts of vegetables; & are Annual, Biennial or Perennial. They are of seven kinds.

1. Branching.
2. Fibrous.
3. Creeping.
4. Spindle
5. Tuberous whether knobbed, oval, or fasciculed.
6. Bulbous, whether solid, coated or scaly.
7. Granulated, whether moniliform, or dentate.

Herbage is all the plant except the root & carpogenation. It includes the Stem, Leaves, & Appendages

Stems are:

1. Tidge.
2. Culm.
3. Scape
4. Peduncle
5. Petiole
6. Frond.
7. Stipe.

Leaves are Evergreen or deciduous.

Simple leaves are

1. Orbicular.
2. Ovate
3. Oval.
4. Oblong.
5. Obovate
6. Cordate.
7. Obcordate.
8. Kidney-form.
9. Lanceolate
10. Linear
11. Awl-form
12. Awl-pointed
13. Arrow-form.
14. Halbert-form.
15. Guitar form.
16. Lobed.
17. Palmate
18. Pedate
19. Sinuate.
20. Pinnatifid.
21. Lyrate.
22. Runcinate
23. Serrate.
24. Toothed.
25. Cornate.
26. Emarginate.
27. Retuse.
28. Obtuse.
29. Acute.

Compound leaves are:

1. Ternate.
2. Biternate
3. Triternate.
4. Pinnate.
5. Bipinnate.
6. Tripinnate.
7. Interruptedly pinnate.

Surface of leaves are:

1. Hairy.
2. Downy.
3. Silky.
4. Bristly.
5. Ciliate.
6. Nerved.
7. Veined.

Positions of leaves are

1. Decurrent.
2. Clasping.
3. Sheathed.
4. Perfoliate
5. Connate
6. Peltate
7. Opposite
8. Whorled.
9. Imbricate
10. Fasciculed
11. Radical.

Appendages

1. Stipule
2. Bract.
3. Thorny.
4. Prickle
5. Sting.
6. Gland.
7. Tendril

The Sexual System of Linnaeus

Consists of 1. Classes.
2. Orders, or subdivisions of the classes.
3. Genera, or families composing the orders.
4. Species, or individuals of the families; &
5. Varieties, which are accidental changes induced by climate, soil, culture, &c.

1. Classes.

The first eleven classes are formed upon the number of stamina, viz.

1. Monandria, having one stamen
2. Diandria — two stamina
3. Triandria — three do.
4. Tetandria — four do
5. Pentandria — five do
6. Hexandria — six do
7. Heptandria — seven do
8. Octandria — eight do
9. Enneandria — nine do
10. Decandria — ten do
11. Dodecandria — ~~eleven do~~ from twelve to nineteen do. inclusive

The next two classes are distinguished by the situation as well as the number of stamina.

12. Icosandria, having twenty stamina & upwards, but situated upon the ~~receptacle~~ calyx & by this circumstance distinguished from the next class.
13. Polyandria, having also twenty stamina, & upwards but situated upon the receptacle.

The two following classes are distinguished by the relative length as well as the number of stamina viz.

4. Didynamia, having four stamina, viz. ~~four~~ two long & two short.
5. Tetradynamia, having six stamina, viz. four long, two short.

The next three classes are formed upon the union of the filaments, viz.

6. Monadelphia, having the filaments united into one parcel or brotherhood
17. Diadelphia, having the filaments divided into two brotherhoods.
18. Polydelphia. into many brotherhoods
19. Syngenesia, having the antherae united into a tube.
20. Gynandria, having the stamina & pistillum united & supported by the same foot stalk proceeding from the receptacle.
21. Monoecia, - male flowers & female flowers separated, but upon the same plant.
22. Dioecia, male & female flowers separated & upon different plants.
23. Polygamia, having male flowers
female do
hermaphrodite do
} upon the same or different plants.
24. Cryptogamia, the organs of fructification very small, & obscure to the naked eye.

2. Orders.

The orders are formed in the first thirteen classes, upon the number of pistilla, or female organs.

1. Monogynia, having one pistillum
2. Digynia — two pistilla
3. Trigynia — three do
4. Tetragynia — four do
5. Pentagynia — five do
6. Hexagynia — six do
7. Heptagynia — seven do

8. Decagynia — ten pistilla
9. Dodecagynia — twelve do
10. Polygynia — many do

In the 14th class the orders are formed upon the seeds being naked in the calyx, or contained in a capsule:

1. Gymnospermia, naked seeds.
2. Angiospermia, enclosed seeds.

In the 15th class the orders are formed upon the seed-vessel, or pod:

1. Siliculosa, small podded, as the Shepherd's purse.
2. Siliquosa, long podded, as the radish.

In the 16th, 17th & 18th upon the number of stamina, & are expressed as the first thirteen classes.

In the 19th class are six orders, viz.

1. Polygamia Æqualis, i.e. the florets are all equal & fertile.
2. ——— Superflua. Hermaphrodite in the centre or disc, & fertile; & female florets in the radius, or circumference, which are also fertile, & therefore superfluous.
3. ——— Frustranea. Hermaphrodite & fertile florets in the disc but barren florets in the radius.
4. ——— Necessaria. Hermaphrodite florets in the disc, but their ~~florets~~ females barren. The females in the circumference being fertile, are therefore necessary for the propagation of the plant.
5. ——— Segregata. The florets separated by partial calyces, as well as contained in a common calyx.
6. Nonogamia, i.e. composed of simple, not compound flowers as in the preceding orders, e.g. Violet & Lobelia.

The orders of the 20th class are taken from the number of stamina.

The orders of the 21st & 22nd classes are formed from the preceding classes. Thus,

Monoecia Monandria
——— Diandria
——— Triandria &c. &c.

Dioecia Monoecia
——— Diandria
——— Triandria &c. &c.

The orders of the 23d class are formed upon the male, female, & hermaphrodite flowers being contained upon one, two, or three plants; hence denominated

Polygamia Monoecia.
——— Dioecia.
——— Trioecia.

The 24th class consists of four orders:

Filices, or Ferns.
Musci, or Mosses.
Algae, including sea weeds, &
Fungi, including mushrooms, &c.

30

Class 2nd Diandria.

Order Monogynia.

Lycopus Europeus. — Water hore hound, hore hound, gypsey-wort. vulgo Water Agrimony.

Generic Description. Blos. four-cleft; one segment notched at the end; stamens distant; seed four, blunt.

Specific Description. Leaves indented, serrated, a little hairy. Stem with four corners, & four hollow sides, hairyish. Blossom whitish with a tinge of purple, hairy within, upper segments slightly notched, lower ones with purplish spots at the inside; between the stames frequently two or three shorter filaments, generally without anthers. Germen, on a yellow glandular receptacle. Flowers several together on the bosoms of the upper leaves. Branches opposite, rising from the bosom of the leaves. Ja. sandy ground on the banks of streams & ponds. Blos. july & sept.

Use. (This plant is excellent in suppressing active hemorhagy. A strong decoction of it is useful in checking spitaxis, & in preventing or abating the violence of menorhagia, haemoptysis, & all internal bleeding. Where a strong decoction of it fails in spitaxis, chewing the plant & plugging up the nostril with it has been found of service. This astringent property of the plant has been unnoticed by botanical or materia medica writers. It however, deserves honourable notice in the class of remedies. S. W. Williams.)

It dies black, & has been used with linen & clothes. The juice gives a permanent colour to linen, wool, & silk, which will not wash out. Travelling gypsies use it to stain their faces. Sheep & goats eat its; cows & horses refuse it.

Class 4th Tetandria.

Tetandria, Dygynia

Cuscuta, Americana. C. epithymum. C. epithymum. Eng. Dodder.

Gen. Desc. Calyx four or five cleft; Blossom one petal; caps two celled, not round

ends in pairs.
Spec. Desc. Flowers sitting. four cleft. whitish. Leaves round. A parasytical plant, without seed lobes. In hops, nettles, heath &c. Blos. July & August.

Use. This is a very curious & singular plant, which will not grow in the ground. It was formerly celibrated as a cathartic, but it is a very languid one, & now out of use. Hill

Class Pentandria.

Order Monogynia.

Cynoglossum. C. Officinale. C. Vulgare. Eng. Great hound's tongue.

Gen. Desc. Blos. funnel shaped, mouth closed by projecting valves; nuts 4. depressed, fixed to the style by the inner side only, imperforated

Spec. Desc. Stamens shorter than the blossoms. Leaves broad strap-spear shaped, sitting collony. the whole plant downy; cal. segments oblong. egg shaped. Blos. one colour; valves fringed. Road sides, rubbish. Blos. June.

Use. It is excellent, & somewhat mucilaginous. especially the root, which for medicinal purposes is preferred to the leaves. It is reported to be deleterious, & the dingy hard appearance of the leaves, peculiar to shrubs of the narcotic kind, favours the opinion; nor are facts wanting to confirm it. A whole family eat ing of it by mistake for comfrey severely experienced its ill effects. Experience has not yet determined how far it may be employed as a medicine. Dr. Hulse is said to have prescribed a decoction of roots internally, together with a poultice of them to scrophulous tumours with safety & advantage. For its use in coughs, hemoptysis, diarrhoea dysentery see Shenkius Diss. de Cynoglosso &, Woodville, Both the root & the leaves have been suspected to possess narcotic effects probably, but some will not admit the fact; it was formerly kept in the shops as a pectoral & narcotic, but it is discarded from the present practice. Mr. Ray says, however, that Dr. Hulse used a decoction of the roots inwardly & cataplasms of them outwardly in strumous & scrophulous cases. Its scent is very disagreeable & greatly

regenerates that of mice. Withering. Rats & mice will fly from houses & barns where this plant is kept. Lin. Soc. Mag. Goats eat it; cows, horses, sheep & swine refuse it.

Pentand. ~~Penbagyn~~ Monogyn.

Symphytum. S. Officinale. S. consolida Major. S. vulgare. Eng. Comfrey. common comfrey. Gen. Desc. Blos. funnel shaped, bellying towards the top; mouth closed by hollow radiate valves, having an open hole on the outside near the border; nuts 4, perforated. Spec. Desc. Leaves egg shaped, decurrent. Cal. close. Blos. yellow white; tube as long as the calyx; valves spear shaped; flat, covering the anthers; edge studded with small shining glands. Rivers banks, wet ditches. Blos. May. There is a variety with red flowers. Use. The root of this plant is a powerful agglutinant, good in the fluor albus. Hill. The root is very mucilaginous, & being rather inferior to the Althea, & more easily obtained may be usefully substituted in its place, for the general purposes of an emollient & demulcent. Woodville. Dr. Cullen says there is no reason why, while mucilaginous matters are obtained in our lists symphytum should be omitted. It may be of service, as alleged in diarrhoea & dysentery. The roots are glutinous & mucilaginous; a decoction of them is used by dyers to extract the colouring matter of gum lac. The leaves give a grateful flavour to cakes & panada; & the young stems & leaves are excellent when boiled. The particles of the pollen appear in the microscope like two globules united together. Cows & sheep eat it; horses, goats & swine refuse it. Lin.

Pentand. Monogyn.

Borago. B. Officinalis. Beglosson latifolium. Eng. Common Borage. Gen. Desc. Blos. Wheel shaped; mouth closed with rags; nuts 4 imperforated. Spec. Desc. Leaves alternate, egg spear shaped, rough as well as the stems, with white prickly hairs. Blos. blue, white, or flesh colour; segments spear shaped; anthers black; filaments above the insertion of the anthers, cylindrical, dark blue, below, thick, brown, glandular. Walls, rubbish. Blos. June, August. Use. The flowers have been termed cordial, & were formerly much recommended

24 in melancholia, & other affections of the nervous system. But as they possess neither warmth, pungency nor fragrance, & as no saline matter appears to be contained in the flowers, any advantage supposed to be derived from a vinous infusion of them, can only be attributed to the menstruum. The leaves abound with a rather viscid juice, which, on being boiled a sufficient time forms crystals of nitre; hence the plant may be inferred to possess refrigerating & aperient virtues. (Woodville) The juice of this plant affords true nitre. It is now seldom used internally, except as an ingredient in cool tankards for summer drinking; though the young & tender leaves are good in salads, or as a pot herb. (Withering) A horse eat it (Dr Stokes.)

#

Pentand. Monogyn.

Verbascum. V. Thapsus. V. Album. Tabacus barbatus. Eng. Great white mullein. High taper. Cow lung-wort. Lady's foxglove.

Gen. Desc. Blos. Wheel shaped, nearly regular; caps two-celled, two-valved, many seeded.

Spec. Desc. Leaves decurrent, cottony on both sides. Stem unbranched from four to six feet high. Summits globular. Flowers in a long terminating spike. Blossom yellow, rarely white.

Dry banks, chalky or gravelly soil. Blos. July.

Use. The leaves have an herbaceous, bitterish, astringent taste, but scarcely any smell; on being chewed they discover a mucilaginous quality, & hence they are recommended as emollients both internally & externally; in the way of fomentation & cataplasm they are said to be an useful application to hæmorrhoidal tumours; & also for promoting the resolution or suppuration of glandular indurations; it has been recommended internally for catarrhal coughs & diarrhoeas; Dr Home found it successful only in the latter. (Woodville) In diminishing, or stopping diarrhoeas of old standing, or easing the pains of the intestines, Dr. Home found it useful; for the former purpose he advises a decoction, two ounces to a quart, of which he gave a quart every day, four ounces every three hours. (Woodville) It is used with advantage as an injection in enterum, & is often applied externally to the piles. (Clin. Exp.) The flowers have also been used

medicinally, being supposed to possess anodyne & pectoral virtues; but
is probable that no part of the plant deserves much consideration as a medicine
(Woodville) The seeds of this plant are said to intoxicate or stupify fish so that they suf-
fer themselves to be taken out of the water by hand (Pergius) In the pulmonary com-
plaints of cattle, it has been found of great service, & is used for consumptive cows
Norway. The clover serves for fodder. Horses, cows, sheep, goats, & swine refuse it. (Pallas)

Pentand. Monogyn.

Datura. D. Stramonium. Solanum Fœtidum. Datura. Eng. Thorn Apple.
Gen. Desc. Blos. funnel shaped, plaited; cal. tubular, angular, falling off with
the blossom; caps four valved.
Sp. Desc. Seed vessel thorny, upright, egg-shaped. Leaves egg-shaped, smooth, deeply in-
cised. Blossom large, white, sometimes purplish. A large, wide spreading plant, na-
tive of America. Rubbish, dunghills. Blos. July. August.
Use. An ointment prepared from the leaves gives ease in external inflammations
& hæmorrhoides. The Edinburgh College directs an extract to be prepared by evap-
orating the expressed juice of the leaves. This has been given with advantage in cases
of convulsions, epilepsies, mania, especially that succeeding child-birth (Woodville)
out of fourteen epileptic patients at Stockholm, eight were cured & five relieved
by Dr. Phelin. The dose two to sixteen grains a day. This plant has been long
known as a powerful narcotic poison. Numerous instances are recorded of its
deleterious effects, especially the seeds, which taken internally have produced
coma, tremors, swelling, itching, inflammation (Med. Com. & Woodville) All parts
of the plant possess a narcotic power, but the seeds are the only parts of whose pa-
rical effects instances are recorded. Their soporiferous & intoxicating qualities are
well known in the East, & are said to have been frequently converted to the most
nefarious & dishonourable purposes (Hedes. Andenbt. Ehr.) By holding this plant
to the nose for some time, or sleeping in a bed where the leaves are strewed, giddiness

Sic & tutor have been produced. — Ibid. Externally the leaves of stramonium have been used as an application to inflammatory tumours & burns. — Gerard. Smoking a few whiffs of the leaves or roots of the stramonium & swallowing the smoke & saliva has produced the most surprising effects in the cure of long-continued Asthmas. C. W. Hufeland informs us that he has found the tincture of the seeds of thorn apples to be in many cases superior as a narcotic remedy to opium, as it neither heats nor causes costiveness. & that he had cured with it all obstinate affections of the mind & convulsive symptoms. Horses, cows, goats & sheep refuse it.

#

Pentand. Monogyn.

Hyosciamus. H. Niger. H. flavus. H. vulgaris. Eng. Henbane. Black Henbane

Gen. Desc. Blossom funnel shaped, blunt, irregular, stem leaning, caps with a lid, two-celled, seed many, kidney shaped.

Spec. Desc. Leaves embracing the stem, indented. Flowers sitting. Blossoms tube white, middle dusky purple, borders pale yellowish brown, veined with purple, anthers & style dusky purple. The whole plant woolly & clammy with a strong peculiar odour. Village, road-sides, dunghills. Blos. jun. July.

Use. Henbane is a powerful narcotic poison, & many instances are recorded of its deleterious effects, from whence it appears that any part of the plant taken in sufficient quantity is capable of producing the most alarming & terrible symptoms (See in Phil. Transactions. Eng. vol. 40. p. 446 an account of the dreadful madness occasioned to nine persons from eating the root, attended with the remarkable circumstance that after their recovery for some days all objects appeared bright red. A few seeds of the henbane have been known to deprive a man of the use of his reason & of his limbs. Lightfoot. It is probable that the powerful qualities of this plant may under proper management be used with good effect in medicine. Baron Stoerck published cases of different kinds in which extract prepared from the juice was found to be an efficacious remedy; such as internal spasms & convulsions, palpitations of the heart, madness, melancholy, chlorosis, inveterate head-ache, haemoptysis. It has been found to produce sleep more powerfully than opium; & as it possesses a narcotic quality may be useful where the astringency of opium renders the use of it liable to objection. Experience proves this medicine to be an useful an

lyne. (Woodville) The leaves are said to have been applied with advantage
malts in the way of poultice, to resolve scirrhous tumours & to remove some kinds
of rheumatic & arthritic pains. The smell of the henbane is peculiar, & the bruised leaves
emit an odour like that of tobacco. This is stronger if the leaves are burnt, & they
also with a deflagration resembling that of nitre, but to the taste they are mild
mucilaginous. It is poisonous to birds & dogs, but cows, goats & swine are not af-
fected by it. (Wd. Mills) Scattered about a house it is said to drive away mice.
The Edinburgh college order the expressed juice to be evaporated to an extract which
may, perhaps in that state, be advantageously joined with opium if costiveness
is to be avoided. The dose is from half a scruple to half a drachm.

Solanum. S. Dulcamara. S. Scandens glycy-picros. Eng. Woody nightshade, Bitter sweet.
Gen. Desc. Bot. Wheel shaped. Anthers a little united, two holes at the top of each.
Berry two celled.
Spec. Desc. Stems smooth, rather shrub-like, zig-zag, twining. Leaves egg spear shaped, the
upper sometimes halberd shaped. Flowers in tuft like bunches, purple, with two
green spots at the base of each segment; sometimes flesh colour, rarely white. Berries
two celled, scarlet. Moist brakes, hedges, sides of ditches. Blos. June, July.
Use. The roots & stalks, upon being chewed, first cause a sensation of bitterness,
which is soon followed by a considerable degree of sweetness; hence the name
of bitter sweet. The berries have not yet been applied to the purposes of
medicine, but they seem to act powerfully upon the homo vide, in ex-
citing violent vomiting & purging. Thirty were given to a dog, which soon
became mad, & died in three hours when on his being opened, the berries were
found in his stomach unchanged by digestion. The stalks or young twigs
are directed for use in the Edinburgh Pharm either fresh or dried, allowance be-
ing made for the diminution of its powers in drying. They should be gathered
in Autumn. Murray says it promotes all the secretions, in which Ber-
nius seems to coincide. Hallé observes that it has taken of the volatile power

powers of the nightshade joined to a resolvent, & saponaceous quality. Linnaeus says it is useful in flatulent rheumatisms, inflammations, fevers & suppressions of the lochia. In Asthma it was found very efficacious by Dr. Hill, & Dr. Hallenberg has advised it in ischiatic & rheumatic pains, jaundice, scurvy, & lues venerea. Linnaeus directs a pint of boiling water to be poured upon two drams of the stalks sliced & dried; after standing half an hour it must be boiled fifteen minutes. The dose is two tea cups full, or more morning & evening. The stalks may be gathered early in the spring, but better in autumn as the sensible qualities are then strongest. Med. Comm. The root has the smell of the potatoe. (Dr. Beddoes)

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Solanum Nigrum. Gen. Desc. Above. # Common Nightshade. Garden Nightshade. Spec. Desc. Stem without prickles, herbaceous, branched, angular. Leaves egg-shaped, toothed, angular. Bunches nodding, pointing two ways. Fruitstalks lateral, unifolded, angular. Blossom white. Berries black. This plant is subject to great varieties, with as it is herbaceous, in southern countries woody & very hard way between the leaves. Rubbish, dunghills, kitchen gardens.

Use. The leaves infused in boiling water, & taken at bed-time, from one to three grains, occasion a copious perspiration, increase the secretion by the kidneys, & generally purge more or less the following day. The leaves applied externally abate inflammation & assuage pains. The leaves are poisonous & the berry equally with the leaf. & to poultry they are immediately fatal. Externally it has been found useful as a discutient & anodyne in various affections of the skin, tumefactions of the glands, ulcers & disorders of the eyes: with the Arabians it is a common application to burns & ulcers. Mr. Gattaker has recommended in a publication on the subject, its internal use in old sores, morphew & cancerous ulcers, inveterate eruptions & even in dropsies; one grain of the dried leaves, he says, infused in one ounce of water sometimes produced considerable effect; in a dose of two or three

ains it seldom failed to evacuate the first passages, or to increase
mbly the discharge by the skin, or by the kidneys; & not unfrequently occa
sioned head-ach, giddiness, dimness & drowsiness. The flowers smell like musk

#

Pentand. Monogyn.

Impatiens. I. Noli-tangere. Eng. Quick in hand. Impatient. Touch me not.

en. Desc. Cal. two-leaved. Blos. five petal, irregular. Nectary hood like Stem coh
ing; caps superior, one celled, opening with a jerk into five spiral valves.
pec. Desc. Fruit stalk, many flowered, solitary. Leaves egg-shaped, pendant
t night. Stem swollen at joints. Blos. yellow with red spots. Moist shady pla
Blos. July. August.
lse. The whole plant is considerably acrid. Goats feed upon it; horses, cow
sheep refuse it. (Withering)

Pentand. Digyn.

Chenopodium Anthelminticum officinalis. Jerusalem oak. Worm seed.

Perennis in Pennsylvania; foliis ovata oblongis dentatis, racem. aphyllis.
Use. Dr. Wilkins of Baltimore recommends the essential oil of chenopodium as one
the most powerful anthelmintics. He likewise observes that there is great reason
believe that it may be extended to various disorders incident both to children &
adults. It certainly promises fair to be useful as any other essential oil for hysteria, cho
ea, convulsions, or palsy. The dose he recommends is about one drop & a half
each year of the child's age, till nine drops are required, beyond which it may
probably be imprudent to extend it for any age if the oil is genuine. The oil shou
be dropped on a lump of sugar, & grated into as much water as it will render tight
turbent, taking care with young children not to make it too stimulating.
This quantity should be given on an empty stomach, twice a day till half a dram
or a dram is consumed, when a gentle purge of castor oil, or calomel & jalap should
be administered. The appearances & qualities to be expected of genuine oil are:
Of a light straw colour, possessing much of the odour of the plant, very pungent

40 to the tongue & palate.

Barra says, the seeds of this vegetable, which grows in Pennsylvania have an agreeable pretty strong odour, & an aromatic taste; it is said to be much used in America against worms, especially against the lumbricoides. Chalmers who gives the description of it, affirms that with the powder of these seeds only is compound that anthelmintic electuary, so famous in North America.

Pentand. Monogyn.

Conium. C. maculatum. Cicuta major. Cicuta vulgaris. Eng. Hemlock. Common hem

Gen. Desc. Involucrum long about half-way round of about three leaves. Fruit egg-shaped, ribs compressed, waved before the fruit is ripe.

Spec. desc. Seeds without prickles. Stem branched, smooth, shining, spotted & streaked with blackish purple. Involucel. one half divided into three & four segm. at the edges white & membranous. Lower leaves dark green & shining. Petals target. Flowers white. Hedges, orchards, dunghills, rubbish, & cultivated ground. Blos. June & July.

Obs. This plant has a peculiar faint smell & fetid, & a slight aromatic & somewhat nauseous taste. That the plant is poisonous there can be no doubt, & numerous instances are recorded by various authors of its deleterious effects; but it seems probable from some circumstances, that it is less powerfully so than was first imagined. That the root does not possess any noxious power whatever, several recent instances of its being repeatedly & largely eaten with impunity have unequivocally been shown. Hand. Mr. Lane informed Mr. Curtis that from his own experience he was of opinion "the roots might be cultivated in gardens, & either eaten raw like celery, or boiled as parsnips & carrots." Vinegar has been found the most useful in obviating the effects of the poison of hemlock, & by macerating or boiling the plant in vinegar it becomes totally inert. For the principal symptoms produced by immoderate doses of hemlock see Hetles. Therapeut. This was generally employed by the Greek & Arabian physicians

an external remedy for tumours, ulcers & cutaneous eruptions; it
was also thought to have the peculiar power "frangere stimulum vene-
ris" et "incrementa innatum et lentum cohibere": which seems the more re-
markable, as Stoerck, Bergius, & others recommend its internal use in complaints of
contrary nature. & adduce proof of its aphrodisiacal powers. Baron Stoerck
first brought it into repute as a medicine of extraordinary efficacy, & Bergius
considers its virtues to be narcotica, resolvens, suppurationem promovens, diuretica
&c, & recommends its use in various disorders; others however have condemned it,
& the value of this medicine seems still to be undetermined. It has been found
at several disorders which have resisted other medicines, have yielded to hem-
lock, & that some if not cancerous at least of that tendency, have been re-
lieved by it. In chronic rheumatisms, glandular swellings &c. & in the chin-
cough it is now generally employed. Externally the leaves of hemlock have
been variously applied with advantage to ulcers, indurated tumours, & gangrenous
bubos. Dr. Withering recommends the powder of the leaves & prefers it to the
extract. He recommends the following method of preparation: Let the leaves
about the end of June, when the plant is in flower. Pick off the little leaves
throw away the leafstalks. Dry these selected little leaves in a hot oven, or
a tin dripping pan, or a pewter dish before the fire. Preserve them in
bags made of strong brown paper, or powder them & keep the powder in
bottles in a drawer, or something that will exclude the light; for the
light soon dissipates the fine green colour, & with its colour the medicine lo-
ses its efficacy. From fifteen to twenty five grains of this powder may be
taken twice or thrice a day. I have found it peculiarly useful in chron.
rheumatism, & also in many of those diseases that are usually supposed
to arise from acrimony. Mrs. G. in Ireland cured a poor woman of a
cancer in the breast by hemlock pills taken inwardly, with strips of the
same plant. H. B. Baron Stoerck used an extract from the fresh root in
treating cancerous & scrofulous complaints. — Lightfoot

Class. Pentand. Order. Monogyn.

Cicuta. C. Maculat. C. viros. C. aquat. Ang. Long leaved water hemlock. Water cowbane.

Gen. Desc. Fruit nearly egg-shaped, ribbed.

Spec. Desc. Leaves winged; leaflets spear-shaped, in threes, serratures white at the point. Stem four feet high, reddish below. Fruit stalks, sheathed at the base. Styles upright, white, in the fruit straggling. Fruit compressed, even, ribbed.

Petals yellow green. Perenn. Blos. July. Aug.

Use. As an internal medicine this is universally superseded by the common hemlock, but externally employed in the way of poultice it is said to afford relief in various fixed pains, especially those of the rheumatic & arthritic kind. In its dried state Bergius tells us it may be taken in considerable quantities without producing any bad effect; but the root when fresh, is extremely delirious. The symptoms produced upon some children who ate of it for parsnip root, were intoxication, vertigo, great heat & pain in the stomach, convulsions & even epilepsy, distortions of the eyes, vomiting or retching, discharge of blood from the ears, swelling of the abdomen, hiccup, spasms, &c. In a man, delirium with constant heat of the stomach, & an unextinguishable thirst, were of long continuance, & followed by an erysipelatous tumour in the neck. The timely administration of an emetic is the only remedy.—(Woodville) It is one of the rankest of all vegetable poisons. Numerous instances are recorded of its fatality to the human species in a treatise upon it by Weppfer, Haller &c. Early in the spring when it grows in the water, cows often eat it & are killed by it. But as the season advances its scent becomes stronger, & warns them carefully to avoid it. But though it is a certain & fatal poison to horned cattle, goats devour it greedily & with impunity. Horses & sheep also eat it greedily.—(Withering)

Pentand. Pentagyn.

rosera. D. rotundifolia Ros. Solis. Ang. Round leaved Sundew. Red root. Youth-
rt. Moor Grass.

en. Desc. Cal. five div. Pet. five. Caps. one cell, five valves at top Seeds several
ed to the side.

hac. Desc. Stalks from the root. Leaves circular. Styles six. Leaf stalks fringed
the base. Blossom white. Mossy bogs. Blos. July, Aug.

se. The whole plant is acrid, & sufficiently caustic to erode the skin; but
e ladies know how to mix the juice with milk, so as to make it an innocent &
fe application to remove freckles & sunburn. The juice that exudes
ill, ammixed, destroy warts & corns. This plant has the same effect upon
ilk as the pinguicula vulgaris, & like that too is supposed (particularly
the Scotch highlands, Lightfoot) to occasion the rot in sheep. The name
Sundew seems to be derived from the striking appearance of these
lants: the leaves being fringed with hairs supporting small globules
pellucid liquor like dew which continue even in the hottest sun.
erhaps its acrimony resides in this secreted liquor — Withering.

The leaves of this marsh plant are purple, & have a fringe very unlike the vege-
ble productions. And which is curious, at the point of every thread of this e-
ct fringe stands a pellucid drop of mucilage, resembling a crystal coronet. This
ucus is a secretion from certain glands, & like the viscous material round the
ower stalks of Silene (catch-fly) prevent small insects from infesting the leaves.
s the ear-wax in animals, seems to be in part to prevent fleas & other insects
om getting into their ears. Mr. Whately, an eminent surgeon in London ob-
ved these leaves to bend upwards when an insect settled on them like the
ves of the Muscipula Dionei, & pouring all their globules of mucus to the
ect, that they completely entangled & destroyed it. M. Bronsonet in the
em. de l'Acad. des Sciences, for the year 17[illegible], after having described the motion
the Dionea adds that a similar appearance has been observed in the leaves of two species
of Drosera (Sarracenia)

Class 6th Hexandria. Ord. Monogynia

Asparagus. A. Officinalis. Eng. Asparagus. Sparrow grass. Sparage.

Gen. Desc. Blos. six div. upright. Inner petals, tops reflected. Berry sup. three celled seeds two.

Spec. Desc. Stem herbaceous, cylindrical, upright, jointed. Leaves bristle shaped; leaf scales solitary or in pairs. M. & F. flowers sometimes on distinct plants, but not when cultivated. Blos. bell shaped, yellow green; flow. M. & Hem. or hermaph. berries red: seeds one to three. Meadows & rocks on the sea coast. Bl. July.

Use. The young shoots in a cultivated state are universally esteemed for their flavour & nutritious qualities. They impart to the urine the scent that is perceived on the water in which they have been boiled. (Withering.)

Alexandria. Virginia.

Rumex. R. Crispus. Eng. Curled Dock. Narrow leaved Dock.

Gen. Desc. Calyx three leaved. Petals three, closing. Seed one three cornered inclosed in the blossom.

Spec. Desc. Flow. herm. Pet. entire, all bearded. Values, strongly veined. Leaves spear shaped, acute, waved, & curled at the edge. Root yellow. Beard on or three, rarely two. Values large brown red when ripe. Beard pale when young changing to blood-red, then to brown red. Pastures, road sides, all soils. Bl. June July.

Use. The fresh roots bruised & made into an ointment, or a decoction of them is a cure for the itch. (Withering) & is useful in other cutaneous eruptions (P. H. William) The seed have been given with advantage in dysentery. In Norfolk (Eng) this plant is the pest of the clover fields. Horses, goats, & cows refuse it (Withering).

Take the narrow leaved dock root, & boil it in water till it be quite soft then bathe the part affected in the decoction as hot as can be borne, the root must then be mashed & applied as a poultice. This is said to cure cancer! (Coulson's Medicines)

Hexand. Virgin.

Rumex. R. Acetosa. Lapathum acetosum. Acetosa pratensis. Oxalis crispa

Eng. common sorrel. Sorrel dock.

Gen. Disc. As above

Spec. Disc. M. & F. flow. on distinct plants. Leaves oblong, arrow shaped. Leaf stalks purplish. Blos. Reddish. Male cal. leaf obtuse. Female cal. leaf acuminated, reflexed, waved on the margin. Meadows, & pastures. Bl. June-July. The leaves have an agreeable acid taste, & have been esteemed refrigerant, antiscorbutic, & diuretic. Taken in considerable quantity, or used variously as pot herb food, sorrel will be found of important advantage where a refrigerant, or antiscorbutic regimen is required; Linnaeus says that the Laplanders experience acetosum to be in this respect an useful & pleasant diet. (Wolle) The Laplanders boil the leaves in water, & mix the juice when cold in the milk thus reindeer diet, which is thus esteemed by them an agreeable & wholsome food. (Lightfoot) The leaves are eaten will keep in a cool place a long while. In France they are cultivated for the use of the as in sauces & salads. In some parts of table, being introduced into soups, ragouts & fricasees. In Ireland they are plentifully eaten with milk, alternately biting & sipping. The Irish also eat them with fish, & other alcalescent food. The dried root gives out a beautiful red colour when boiled. Horses, cows, sheep, goats & swine eat it. (Withering) See page 124 — & M.M. v. 1. p. 112

Class Tetandria. Ord. Monogyn.

Mitchella. M. repens — Ang. Chequer Berry. Partridge berry.

Perennial. — Flowers (in Pennsylvania, New Jersey &c) in June & July; ripens its fruit in August & September. The fruit often continues upon the plant through the winter, & succeeding spring. The stems are slender & shrubby, lying close to the ground, & throwing out radicles at the joints. The leaves are opposite of a pretty thick consistence, obtusely egg shaped, entire, very smooth & of a dark green colour. They are marked, both longitudinally & transversely, with whitish or purpurescent coloured veins, which are especially observable upon the upper surface. The flowers are axillary twined (two arising from a common peduncle)

villous internally, & of a white colour. Stamens four. Germen twin, orbicular, common to both flowers & inferior. A single style to each flower; stigmas four. The pericarp is a berry, two lobed & globose; seeds commonly four, compressed & villous. The flowers have a very agreeable odour.

Cotton Mather says, that the Mitchella is a valuable remedy in cases of dropsy. A decoction of the leaves is directed to be taken for several days together as a tea. It is said to act as a diuretic, "as long as the disease lasts; after which it may be drank without provoking urine observably." He adds that "gouty people drink it with benefit." l.c. I am assured that in Georgia this plant has been found very beneficial in some cases of dropsy, & that its diuretic operation is very manifest. Birds of various species, especially the Tetrao umbellus (called Pheasant & Partridge) & the Tetrao maryilandicus (called Partridge) in Pennsylvania eat the ripe fruit. Hence one of the most common names of this plant, Partridge-berry by which it is known in Pennsylvania, & in the New England states, & even in Hudson's bay. The berries though not very agreeable to the taste, are, it is believed, quite innocent, notwithstanding one of the names of the plant, Poison berries by which it is sometimes ~~known~~ in the country around Hudson's Bay. (Barton Journal)

Vaccinium V. Oxycoccos. Oxycoccos vulgar. Hay. Cran berries. Moss berries. Fen berries. Marsh Whorts. Marsh whortle berries. Cow berries.

Hernand. Hexagyn.

Spec. Char. Leaves evergreen, egg-shaped, entire, edges rolled back. Fruit stalk single or in pairs, one flowered, red, semi transparent. Stem thread shaped, trailing, not hairy. Cal. smooth, fringed at the points, coloured. Blos. four distinct petals, deep flesh colour. Stam. often ten. anth. two celled, ending in a hair like open tube. Style red, tubular. Summit an open hole. Berry purplish red. Peaty Bogs.

Use. Made into tarts they are generally much esteemed. But their peculiar flavour rendes them disagreeable to some people. If they be wiped clean & then closely corked in dry bottles, they will keep for several years, or the bottles may be filled with water. The name of Cranberry, which is the most general originated, probably from the fruit stalks being crooked at the top, & before the expansion of the blos. resembling the head & neck of the crane.

ornus. C. Sericea. Ang. Blue berried dogwood. Cornus Americanus. Red willow. Rose
illow. Swamp dogwood. American red-rod cornus. New England Dogwood. Female Dogwood
en. Desc. Involucrum 4-phyllum caspius. Petala supra 4. Drupa unica 2. loculari-
Kinnikinnick is the name which some of our Indians, of the Delaware stock give to the
nictum, which they are fond of smoking, of the bark of this species of cornel & tobacco-
In swamps, on the margins of rivers & streams I believe on high dry ground. This species has
very extensive range through the continent of North America.
shrub from six or eight to ten or twelve feet in height. Flowers in Pennsylvania
- July & August.
Use. The bark of Cornus Sericea is one of the favourite winter articles of food of the
American beaver (castor fiber). The ripe drupes are greedily devoured by the common
domestic fowl. From the bark of the more fibrous roots of this shrub, the Indians in
some parts of the continent, obtain a good scarlet colour with which they dye some of the
tiles of their dress. I have not learned what mordant (if any) they employ to fix the
our. (Barton)
Both the cornus florida & the cornus sericea are found by experiments instituted by Dr. John
H. Walker, to possess the same ingredients with cinchona. The cornus florida possesses
ort of the gum, mucilage & extract; the sericea the next which appears to be an in-
mediate between the florida & cinchona, while the latter possesses most of the resin
e virtues appear equally similar in their residence. The extract & resin possess all the
tive virtues. The extract appears to possess all their tonic powers. The resin when pe-
ctly separate from the extract appears to be purely stimulant. The bark of cornus
sericea forms a beautiful tincture with proof spirit, which has been found useful in the lat
stages of diarrhoea unaccompanied with fever. This & the powdered bark of both species
e well deserving a place in the apothecaries shops, as valuable additions to the Materia
Medica. The industrious & learned Professor Barton says "I believe, however, that it may with
tive safety be asserted that as yet we have not discovered within the limits of the Uni-
d States, any vegetables which have been found ~~to~~ so effectual to answer the purpose
the Peruvian Bark in the management of intermittents. Yet, as the cornus florida & the
cornus sericea. — These articles have already attracted the attention of medical practi-
oners in the U. States, many of whom have vouched for their astringent & tonic powers to be little
any thing inferior to those of cinchona officinalis. (Thacher) —

Arbutus. A. uva ursi. — Class 10th Decandria. Ord. Monogin.
Bearberry. Strawberry tree. Trailing Arbutus. — Vaccinia ursi. Arg. Bear berries. Bear whorth berries.
Spec. Desc. Stem trailing. Leaves oblong. egg-shaped. very entire. veined like net work
underneath. Blos. flesh-colour. tinged with red. mouth contracted. Berries red. Dry heaths
& woods. B.C. May. June.

Use. The leaves have in a dry state a bitterish astringent taste. The berries, insipid
pulpy & mealy. The uva ursi was much employed by the Ancients as an astringent
but in modern practice was neglected till about the middle of the 18th century. it
acquired a celebrity for its efficacy in calculous & nephritic affections, & also in
almost every complaint to which the urinary organs are liable, as ulcers of the
kidnies, & bladder, gleet, leucorrhoea, diabetes &c. It was first used at Montpelier for this
purpose, & afterwards by Dr. de Haen at Vienna who relates several cases in which
it proved of the greatest service. But in England its success has been more uncertain
some patients found no relief, & some thought their complaints rather aggravated
than alleviated; while in other calculous & nephritic cases, the symptoms have been
almost entirely removed. Perhaps upon the whole it may be found no better than other
vegetable astringents; some of which have been long used by the country people in
gravelly complaints & with very great advantage. Hitherto unnoticed by the
regular practitioners. Half a dram of the powdered leaves given every day, or every
other day has been found useful in calculous cases. The leaves may be used either in
powder or decoction; the former is generally preferred, & given in doses from a scruple
to a drachm two or three times a day. Those plants which grow in dry, lofty &
exposed situations, are preferred for medical use, to those found in vallies & in
shady ground. This plant is much used in Sweden to dye an ash colour, & to tan
leather. Woodville. Horses, cows, sheep & goats are fond of it. Withering.
Professor Barton, from long experience of its efficacy, is high in its commendation
in cases of nephritic affections, on gout, & has found it serviceable in old gonorrhea.

Decand. Trigyn. Nat. ord. Caryophyllae

Stellaria. S. Media. — Alsine Media. Arg. Common Chickweed.
Gen. Desc. Cal. five leaves expanding. Petals five divided down to the base. Capsule
one celled. Seeds many.
Spec. Desc. Petals deeply divided. white. Stamens very greatly in number. Leaves egg-
heart-shaped. Stems with a hairy ridge on one side. Caps. six valved. Seeds round
compressed, yellow, rough, with little tubercles. All parts from the damperst to the drier

ce. The young shoots & leaves boiled are a very good eatable: they can scarcely be distinguished from spring spinach, & are equally wholesome. — Withering. This genus of Stellaria is a notable instance of what is called the sleep of plants: for every night the leaves approach in pairs, so as to include within their upper surfaces the tender rudiments of the new shoots; & the uppermost pair but one, at the end of the stalk are furnished with longer leaf stalks than the others, so that they can close upon the terminating pair, & protect the end of the branch. Linn. The flowers are open from nine o'clock till noon, but of a day that it rains they do not open; after rain they become purulent, but in a few days rise again & are upright. Swine are extremely fond of it; cows & horses eat it; sheep are indifferent to it; goats refuse it. It is a grateful food to small birds, & to young chickens. Withering.

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Decand. Origin.

Spergula. S. Arvensis. Eng. Horned Spur. Corn Shurry.

Gen. Desc. Cal. five leaved. Pet. five, entire. Caps. egg shaped, one celled, five valved.

Spec. Desc. Leaves in whorls, three on each side, cylindrical, thread like, woolly, clammy. Stem thick at the joints. Fruit stalk branching. Flowers white. Stamens five ten. Seed, rough, black with a white border. Corn fields, gravel walks. Flowers July & Sept. Use. The inhabitants of Finland & Norway use the seeds to make bread, when their crops of corn fail. Poultry are very fond of them. Experience shews it to be very nutritious to the cattle that eat it. Horses, sheep, goats & swine eat it; cows refuse it. Withering.

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Class 11th Dodecandria. Order Digynia.

Agrimonia. A. Eupatoria. Eupatorium veterum. Eng. Common Agrimony.

Gen. Desc. Cal. five toothed, surrounded by another. Petals five. Seeds two in caps at the bottom of the calyx, which become indurated.

Spec. Desc. Stem cylindrical, roughish, hairy. Stem leaves winged. The odd leaflet on a leaf stalk. Leaves hairy covered with minute dots, & segments ending in small reddish lands, interruptedly winged; leaflets deeply serrated, oblong egg shaped; smallest hair

50 entire. Seed ripens. Fruit globular surrounded at the top with a sort of outer calyx, cleft into five spear shaped irregular segments with white upright bristles, above a circle of numerous green awns hooked at the end, & within these the proper calyx of five leaves, spear shaped, concave, glandular without, within marked with three oblique green lines, ending in a reddish point. Petals egg shaped, concave, slightly notched, twice as long as the capsule. Stam. 5 to 12. Germen crowned with the calyx & a yellowish fleshy receptacle. Styles thread shaped. Summits two thin lips at the end of each style. Caps. egg shaped hairy, ribbed. Seeds egg shaped, flattened on one side. Flowers in long, upright, terminating bunches, fine yellow. Borders of corn fields hedges, shady places. Bl. June, July.

Use. This plant has been principally regarded in the character of a mild astringent & corroborant; & it is recommended by many as a deobstruent, especially in hepatic & other visceral obstructions. Chomel relates two instances of its successful use in cases ~~of~~ where the liver was much enlarged & indurated. It has been used with advantage in hemorrhagic affections, & to give tone to a lax & weak state of the solids. In cutaneous disorders, particularly in scabies, it is said to manifest great efficacy; for this purpose it was given with liquorice in the form of tea; but, according to Alston it should be always exhibited in the state of powder. (Woodville) The infusion of the root is said to be made use of by the Canadians in burning fevers with great success. The infusion of 6 oz. of the crown of the root, in one quart of boiling water, sweetened with honey, & drank half a pint three times a day, is said by Dr. Hill to be an effectual cure for the jaundice. He advises to begin with a vomit, afterwards to keep the bowels loose, & to continue the medicine as long as any symptoms of the disease remain. (Withering) The leaves make a very pleasant tea, said to be serviceable in hemorrhagies & in obstructions of the liver & spleen. They are sometimes used by the country people by way of cataplasms in fresh wounds & contusions. (Lightfoot) It has been esteemed a cephalic but now is not used. Hill. The flowers fresh gathered smell like civets. Sheep & goats eat it; horses, cows, & swine refuse it. - Linn.

Dodecand. Monogyn.

Nymphea. N. alba. N. odorata. Eng. Fragrant Water lily. White water lily. Ger-
man. Candlock. Water socks.

Gen. Desc. Blos. many pet. Cal. four or five leav. Sum. round. flat sitting. Berry su-
perior. Cotyled. many celled.

Spec. Desc. Leaves oval, heart shaped with a deep notch at the base, valve entire
cal. four cleft, leaves smaller than the outer petals. Petals in several rows resem-
ing a double flower, bright white. Flowers open about seven o'clock in the mor-
ing & close about 4 P.M. & then lie down on the water. Leaf & fruit stalks round
ill of fibres within. Summits seventeen or eighteen, in a circle, corresponding
the its many cells in the germen. Show rivers, ponds. In the sea at Cork.—
July.

Use. The roots are used in Ireland, & in the island of Java, to dye a dark
own. This is one of the most beautiful of the English plants, & for the splendour of
its starry blossom, brilliant white, & natural double, well deserves to be cultivated by
curious florist. It may be propagated by transplanting in winter its roots, which
e bulbous. It extends itself by long runners, which form a root at the end, & send
h leaf-stalks in deep water. The petals gradually lessen as they approach the
ntre of the flower, where the outer filaments, expanding in breadth, gradually
ume the form of petals, as is generally the case in the double flowers of the
arden. (The roots form a most excellent inspissating poultice, for boils,
bscesses & tumours, S.W.W.) Swine eat it; goats are not fond of it; horses & cows
refuse it. Withering. See my Mat. Med. vol. 1. p. 101

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~~Polyandria~~ ~~Dodecand.~~ Monogyn.

Tilia. T. europea. T. Fœmina. T. Americana. Eng. Lime tree. Linden tree.

Gen. Desc. Blos. five pet. cal. five div. seed vess hairy like, globular, five celled,
five val. opening at the base.

Spec. Des. Flower without nectary. Berry four celled. Leaves heart shaped, serrated.
Flower-leaf yellow green, nearly as long as the pet. stalk, & attached to half its
ing th. Blos. white. Woods & Hedges.

Uses. The cap inspissated affords a considerable quantity of sugar. The leaves are dried in some countries for the winter food of sheep & goats; they are eaten by cows in the autumn, but they give a bad taste to the milk. The flowers are fragrant, & afford the best honey for bees. The bark macerated in water may be manufactured into ropes & fishing nets. The wood is soft, light & smooth, close grained & not subject to the worm. It makes charcoal for gun powder & for drawing; it is used for leather cutters' board, & for carved work, & is also employed by the turners. This tree flourishes best on the sides of hills, but will grow very well in meadow grounds. It is useful for forming shady walks, & clipped hedges, is easily transplanted & does not destroy the grass beneath it. (Withing)

Extract of a Letter from Thomas Walmsley M.D. to B.S. Barton M.D.

"Sometime since I mentioned the Vitis Americana as an application to burns, scalds &c. & supposed it to be entitled to further consideration. I have since that had considerable experience with it, & have no hesitation in recommending it, as superior to any thing I have seen used in these cases; & as my confidence increases with every opportunity I have of using it, I think it ought to make you this communication, not doubting but you will give it a trial, as you have already done so much towards ascertaining the properties of our indigenous vegetables. The part of the bark of the tree made use of is the liber or inner bark. I have generally used it fresh taken from the tree; but it answers very well when carefully dried. In either case it is cut into small pieces, & macerated in cold water, frequently stirring it about. In a short time the water becomes extremely viscid, & with this the injured part is to be kept constantly wetted.

In what manner this application produces so wonderful an effect, I do not pretend to say. Neither would I say if it would be serviceable in erysipelatous or other inflammations; but there is some analogy between this & the inflammation from burns & scalds, the experiment would be worth making. — Relief is obtained in a very short time after the application, & a cure is soon performed. — Whether my confidence is too sanguine or not future observation must determine. It has rarely happened that I have been under the necessity of employing any thing else. I have no doubt that the cold water has considerable effect in abating the inflammation.

t I am equally certain that if it were used in minute quantities in the 5d
mixture of the Tilia, a very perceptible difference would be found.
The Tilia often reaches the height of forty or fifty feet, & there are many trees two feet
diameter. It is generally found along the water side where it makes a beautiful
pearance while in flower; & from its singular mode of inflorescence, the peduncle
ing a continuation of the midrib or rib, projected from the centre of the bractea
is calculated to arrest the attention of almost everyone."
See Long M. M. vol. 1. page 120

Class Polyandria 19th Order Trigyn. 3d

Delphinium. D. Consolida. D. vulgare. Consolida Hortensis. Eng. Wild Larkspur.
Larkspur. Lark's heel. Lark's claw. Lark's toes. — Lousewort.
Gen. Desc. Cal. 0. pet. 5. or 6; nect. cloven, horn shaped behind; caps. leguminous,
many seeded.
Sp. Desc. Capsule single. Nectary one leaf. Stam. subdivided. Leaves deeply
divided into three or five parts; these deeply cut into slender strap. shaped segments, of-
ten forked at the end. Petals irregularly notched, lateral ones broadest, upper most
hearshaped, blue; by cultivation white, purple, red, or bay. Nect. within upper pe-
tal, tube projecting backward within the tube of the petal. Anth. double yellow
Pist. conical, woolly. Style 0. Summit two; white, small, fleshy, flattened. Corn-
ered. Bl. June. Sept.
Use. The seed are acrid & poisonous. The expressed juice of the petals, with
the addition of a little alum makes a good blue ink. By cultivation the flowers
often become double. Sheep & goats eat it; cows & horses refuse it. (Withering.) The
plant steeped in spirit & the infusion applied to the head of young children, will
completely destroy the vermin. (S. W. W.) — G
One ounce of the bruised seeds of Delphinium consolida infused in one pound of proof
spirit, according to Dr. Blanchard of Pembroke N. H. has been found of essential service
in affections of the lungs, in asthma, particularly the spasmodic, & in most cases of
cough. The Dr. observes, "I am clearly of the opinion that when compared with digitalis
it merits a decided preference; except in cases when it becomes necessary to diminish
arterial action.
A common dose for an adult is from ten to twenty drops, two or three times a day.
I have generally given it with paregoric, one part to three, beginning with twenty

drop, & increasing as the case may require. — Large doses nauseate, produce a slight diarrhoea, & sometimes a flow are perspiration; do not affect the pulse, nor the urinary system."

From a foreign species of this plant is produced the staves acre (D. staphisagrum) of the shops, the cancerous, narcotic qualities of which prohibit its internal use altogether. See my Mat. Med. vol. 1. page 74.

Polyand. Polygyn.

Anemone. A. Nemorosa. Eng. Wood anemony.

Gen. Desc. Cal. generally 0. Pet. five to ten. Caps. with awns or tails formed by the style.

Spec. Desc. Flower naked. Seed tail less, pointed. Stem & fl. purplish. Stem leaves double three fold. Leaflets egg-spear shaped, impt. slightly hairy. Petals three inward & three outer, the latter tinged with deep purple underneath. Woods, hedges, hollow ways.

Blos. April.

Use. The whole plant is acrid. When it is eaten by sheep that are unaccustomed to it, it brings on a bloody flux. The flowers fold up in a curious manner against rain. Goats & sheep eat it; horses, cows, & swine refuse it. - Linn. The paper in which the dried specimens are preserved is stained yellow, whence it appears probable that it might be employed as a dye. - Stokes. This plant is used as a substitute for Spanish flies. See my Mat. Med. vol. 1. p. 45.

Polyand. Polygyn.

Thalictrum. T. Flavum. T. Cornuti - Eng. Meadow rue. wed.

Gen. Desc. Cal. 0. Petals 4 or five, capsules many rather beaked.

Spec. Desc. Stem furrowed, leafy. Leaflets acute, three cleft. Panicle much branched, upright, compact. Flowers upright, yellow, white. Pet. 4. Stam. 24. Pist. 10 to 16. Moist ground. Bl. June.

Use. A cataplasm made of the leaves has been known to give relief in the sciatica. The root dyes a red yellow. Horses, cows, sheep & goats eat it; swine are not fond of it. - (Stokes) -

Polyand. Polygyn.

Ranunculus - R. Sceleratus - Eng. Round leaved water crowfoot. Celery leaved crowfoot.

Gen. Desc. Cal. deciduous five or three leaved. Petals five (rarely two, three or six) with a nectariferous scale or pore within the claw. Styles permanent. Seeds mounted, upright.

Spec. Desc. Lower leaves hand shaped - Upper l. fingered; root leaves

idney. shaped lobes, on long leaf stalks, smooth. Plant dark green, branches
culent. Petals small, yellow. Recept. egg shaped. Fruit oblong. Leaves veiny
Bl. May. June.
Use. The whole plant is very corrosive, & it is said to be made use of by beggars
for the purpose of ulcerating their feet, which they thus expose to the public to
excite compassion. Goats eat it; horses, cows & sheep refuse it (Withy) —
rubbed & applied to the skin it soon blisters in a few hours. Dom. Lec.

Polyand. Polygin.

Sagittaria. S. Sagittifolia. Ang. Common Arrow head.
Gen. Desc. Monoecious. Cal. three div. Petals three. N. filam. about 24. F. seeds
many. naked.
Phlc. Desc. Leaves all from the root, arrow shaped, acute, smooth, entire, with
valid ribs & a net work of veins; the first leaf always under water, strap shaped.
Stalk nicked edged. Leaf st tapering, convex underneath, concave above, under water.
Flowers three in a whorl; lowest fem. on fruit stalks half an inch long; upper m.
~~from 4 to 5 inches long~~ 2 inch long slender. Flower
with one to five pistils. Fruit 3.
Sits, tinged with purple at the claws. Ditches Slow rivers. Bl. July
Use. At the lower part of the root, growing in the solid earth beneath the
It is always found a bulb. This bulb constitutes a considerable part of the food
the Chinese, & upon that account the plant is cultivated by them. Horses,
rats, & swine eat it; cows are not fond of it. — (Withy)

Class 14th Didynamia. — Ord. Gymnospermia —

Veronica. V. Chamoedrys. Ang. Wild germander. Germander Speedwell.
Gen. Desc. Upper lip upright, cleftly divided, over below the base. Stamen
in the division. An indigenous perennial plant growing in pastures & the
sides of hedges, & flowering in May. It is eaten by cows goats, sheep & horses, but
swine refuse it. The leaves of this plant have been recommended as a substi-
tute for tea; but it is chiefly used as a mild astringent. Dom. Lec.

Didynam. Gymnosperm.

Nepeta. N. Cataria. Angl. Catmint.

Gen. Desc. Blos. middle segm. of lower lip crenulated, mouth edges reflected. Stam. approaching.

Spec. Desc. Flowers in spikes, white, a tinge of red, & spotted with purple-Whitish on short foot st. mostly lateral. Leaves on half st. heart shaped, tooth serrated, of a velvet like softness, downy. Cal. downy, green ribs. Pastures, in calcareous soils. Bl. July.

Use. An infusion of this plant is deemed a specific in chlorotic cases; two ounces of the expressed juice may be given for a dose. Cats are so delighted with this plant that it is difficult to keep them out of the garden where it grows. Miller says that if it be raised from seed, cats will not meddle with it, & in support of this opinion he quotes an old saying. "If you set it, the cats will eat it, if you sow it, the cats will know it." It cannot well be planted without being more or less bruised. Sheep eat it; horses, cows, goats, & swine refuse it. — (Withy) —

Didynam. Gymnosperm.

Verbena. V. Officinalis. Angl. Vervain. Simpler's joy —

Gen. Desc. Blos. funnel shaped, segments nearly equal. Calyx one of its teeth topped. Seeds two or four, naked.

Spec. Desc. Spikes thread shaped, panicled. Leaves on the many jagged clefts the upper three-cleft or simple. Stem solitary, four cornered. Stamens four, two longer; often only two. Seeds four. Waste places, stone walls, road sides.

Use. From being used in Sacrificial rites, this plant was held sacred, & by degrees adopted as a medicine, hung as an amulet about the neck; it was afterwards bruised first in order to obtain its virtues more effectually; thus Horatius relates a remarkable instance of its efficacy in inveterate head-ache. In later times it has been employed by way of cataplasm, in which the most severe & obstinate cases of cephalalgia are said to have been cured. Withers, however, it has fallen into disuse, nor has Mr. Morley's pamphlet, recommended, yet in scrophulous cases been able to restore it. This gentleman directs the root to be tied with a yard of white satin ribband

and the neck. There it remains till the patient recovers; he has also on-
ce to infusions & ointments prepared from the leaves of the plants, & occasion-
ally calls in the aid of the most active Medicines of the Materia Medica. &c.

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Dydinam. Gymnosperm.

Mentha. M. piperita. Long. Peppermint.
m. Desc. Bract. nearly equal; four cleft; the broader segments notched at the end.
gments upright, distant.
ec. Desc. Leaves eggshaped, on leafstalks. Stamens shorter than the blossoms. Flowers
terminating spikes, separated in clusters, sometimes in whorls, small reddish purple
ches each whorl. two pointed, spear shaped, hairy floral leaves. Var. Leaves spearshaped.
ter places. Bl. Aug. Sept.

Use. The spontaneous growth of this plant is said to be peculiar to Britain,
t for medicinal uses, its cultivation has long been extended over Europe. It has a more
netrating smell than any of the other mints, a much stronger & warmer taste, pen-
nt & glowing like pepper, sinking as it were into the tongue, & followed by a sensa-
e of coldness. By maceration or infusion it readily & strongly impregnates both wa-
& spirit without virtue. In distillation with water it yields a considerable quan-
of essential oil, of a pale greenish yellow colour, growing darker coloured
age, very light, subtle, possessing in a high degree the specific smell & pene-
ating pungency of peppermint. (Lewis) Rectification. Dr. Cullen observes, is
ticularly necessary & proper for this essential oil: What has been called essence
peppermint, seems to be no other than the rectified oil, dissolved in spirit of
ins. Its stomachic, antispasmodic, & carminative qualities render this plant
ful in flatulent colics, hysterical affections, retchings, & other dyspeptic
mptoms, acting as a cordial, & often producing immediate relief. Camphor
to be obtained from this plant. (Woodville) Peppermint water is well known
a carminative & antispasmodic. The stem & leaves of the plant are beset
th numbers of very minute glands containing the essential oil, which arises
plentifully in distillation. The essence of Peppermint is an elegant medi-
ine & possesses the most active properties of the plant. (Pitcairn)

See next page

Hedeoma Pulegioides. Didynam. Gymnospermia.

Mentha M. Pulegium. Pulegium Latifolium. P. regium. Eng. Pennyroyal mint

Gen. Desc. As above.

Spec. Desc. Leaves egg shaped, blunt, somewhat wolloped, thick, slightly toothed, underneath set with dark semi transparent dots. Stems roundish, creeping, four blunt corners, hairy branched. Blos. twice as long as the calyx, hairy without, pale purple. Moist heaths & pastures. Fl. Aug. Sept.

Use. It has a warm pungent flavour, somewhat similar to mint, but more acid & less agreeable both in smell & taste: its active principle is an essential oil of a more volatile nature than that of mint. Pennyroyal possesses the general properties of the other mints, but it is supposed to have less efficacy as a stomachic though more useful as a carminative, & emmenagogue & more commonly employed in hysterical affections. We are told by Boyle & others that it has been successfully used in the hooping cough; but the chief purpose to which it has been long applied is promoting the uterine evacuation. With this intention Haller recommends an infusion of the herb with steel in white wine which he adds "me nunquam fefellit". Dr. Cullen, however, considers mint in every respect a more effectual remedy than Pennyroyal, & it is now less frequently used than formerly. - (Woodville) The expressed juice with a little sugar, is not a bad medicine in the hooping cough. A simple & a spirituous water, distilled from the dried leaves are kept in the shops; they are prescribed in hysterical affections, & are not without considerable antispasmodic properties; an infusion of the plant may be employed with the same intention. (Withering) See my N. M. vol. 1. p. 84.

Didynam. Gymnospermia.

Mentha. M. arvensis. M. sativa var. M. rubra. Eng. Corn. mint. Horse mint

Gen. Desc. As above.

Spec. Desc. Leaves egg shaped, ~~blunt, somewhat wolloped~~ acute serrated, towards the bottom roundish. Stem spreading, not tinged with red. whole pl. hairy. Flowers in whorls. Calyx with the opposite umbels, sitting. Blos. hairy within & without lower segment blunt. Cal. pale green, hoary, interspersed with very minute semi transparent glands. In watery places & moist corn fields. Fl. July. Septr.

Use. This plant prevents the coagulation of milk; & when cows have eaten it a

y will do largely at the end of summer, when fine, turns dry, & when hung
troses them. This milk can hardly be made to yield cheese, a circumstance which
metimes puzzles the dairy maids. (Withering). — The plant bruised & applied to a
oman's breast when it is cracked or much swelled, will take down the inflamma-
n. I am informed, & will cause it to yield milk in a short time. (J. W. W.)
Sowing Mat. Med. vol. 1. page 97

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Didynam. Gymnosperm.

Glecoma. G. hederacea. G. Hedera terrestris. Chamoecissus. Ang. Ground ivy.
Will. Cat's foot. Alehoof. Run roof. Robin run in the hedge.
Gen. Desc. Cal. five cleft. Anthers in pairs; each pair forming a cross.
Spec. Desc. Leaves kidney or heart-shaped, notched, underneath hollow dots, in which
are glands secreting an essential oil, & above little eminencies not secreting any o-
dorifferous oil. Stamens sometimes imperfect. Roots sending out trailing suckers.
Stem. Blue, rarely flesh colour. Groves, shady places. Bl. April. May. —
Sme. It has a peculiar strong smell, & a bitterish taste, somewhat aromatic. It
was formerly supposed to possess great medicinal powers, which late experience
has been unable to discover. It is now omitted in the London Nat. Med. Its great
virtues have been described as pectoral, detergent, aperient, diuretic, vulnerary, cor-
roborant, errhine &c. & has been variously recommended for the cure of diseases to
which these powers were adapted, but chiefly in pulmonary & nephritic complain-
ts. In obstinate coughs it is a favourite remedy with the poor, who probably ex-
perience its good effects, since they still persevere in its use. Ray, Mead, & others,
speak of its being usefull joined with fermenting ale; but Dr. Cullen observes
that "it appears to him frivolous: & says that he has never had any evidence
of its diuretic or of its pectoral effects: in common with many other of the ver-
nularies, he think it may be employed as an errhine, & in that way cure a head-
ache, but no other way by any specific qualities. Ray gives a remarkable instance
of its efficacy in this way in the complete cure of a most violent cephalalgia.
It is usually taken in the way of infusion, or drank as tea. (Worth). The
ancients throw into a vat with ale, clarify it, & give it a flavour. The ale thus
spiced, is often drank as an antiscorbutic. The coagulated juice mixed with a

little wine & applied morning & evening, destroys the white specks upon horses eyes.- Plants that grow near it do not flourish. It is said to be hurtful to horses if they eat much of it, but they are not fond of it: sheep eat; cows, goats & swine refuse it.- (Withering) Tea made of the leaves & sweetened with honey or sugar, is a good remedy for a cough.- H. B.

Didynam. Gymnospermia.

(Thymus. T. serpillum. Serpillum vulgare minus.- Eng. Common Thyme. Wild Thyme. Mother of Thyme.-
Gen. Desc. Cal. two lipped. mouth closed with soft hair.
Spec. Desc. Flowers in heads. Stems creeping, woody nearly cylindrical. Leaves flat blunt. fringed at the base, oblong egg shaped) Perhaps I have not the species S. N. W.

Didynam. Gymnospermia.

Prunella. P. vulgaris. Brunella vulgaris. B. Major fol. non dissect. P. Pennsylvan. Eng. Common. Self Heal.
Gen. Desc. Filaments forked, one of the divisions bearing anthers. Summit cloven.
Spec. Desc. Leaves egg oblong, serrated. on leaf st. opposite. Cal. up. lip bifid, three toothed, seven ribbed. Blos. Blue, purple or white. up. lip. hooded & notched; lower mid. segm. jagged. Stem in many situations trailing a finger long in woods upright, a foot high; thinly hairy. Meadows, pastures.
Blos. August.
Use It is an astringent, & vulnerary but it is rarely used at present except by the country people; by them it is bruised & applied to fresh wounds; they take it also in broths & apozems for spitting of blood. & in bloody flux. & other haemorrhagies they use it by way of injection.- (Lightfoot) -

Didynamia Angiospermia

Antirrhinum - A. linaria. Eng. Toad flax yellow. Snap dragon. Butter & Eggs.
Gen. Desc. Cal. five div. Blos. bulging at the base, or ending in a spur. Caps. two celled, many seeded, opening at the top & the divisions bent back.
Spec. Desc. Leaves spear shaped, crowded, alternate; stems upright, smooth. Spikes terminating, nothing. Flowers tiled. Blos. petals woolly, orange; lower lip segm. circular. mid. segm. much smaller projecting part orange woolly; the rest pale yel.

with. Nect. long, awl shaped. Barren fields road-sides. Bl. July. Sept.
e. An ointment prepared from the leaves & invented by Dr. Wolph, Physician
the Landgrave of Hesse, has been used in the piles & it is said to afford relief
pt. Withy. The leaves in infusion are diuretic & purgative & are recommended in
hsis. It has also been used in jaundice. An infusion of the flowers is said to be
y efficacious in cutaneous disorders. (Withy) The expressed juice mixed with
ilk is a poison to flies. & the smell of the flowers has the same effect upon them
s, horses & swine refuse it. Sheep & goats are not fond of it. — (Withy) —
See my Mat. Med. vol. 1. page 46

Dydinamia. Angiospermia.

Scrophularia. S. nodosa. S. Maryland. Eng. Great figwort. Kennel wort.
Knobby-rooted figwort. ~
en. Desc. Cal. five cleft. Blos. five div. tube globula; lower segment or lip
d. Caps. two celled, partition double.
Rec. Desc. Leaves oblong, heart-shaped, three fibred at the base. Stem sharp
mered. Cal. toothed & membranous. Blos. tube filled with honey, upper segm.
ilded with honey; upper segm. purple. The out pale green, two lat expanding
ves rolled back. Woods, moist hedges. Bl. July.
se. This plant is hardly known in modern practice. But its rank smell & the
the taste of the leaves seem to indicate some active properties. Some in pustules
n scab have been cured by washing with a decoction of the leaves. Wasps greatly
root to the flower. Goats eat it; horses, cows, & swine, refuse it. — (Withy)

Class 15th Tetradynamia. Ord Siliculosa —

Cochlearia. C. Officinalis. C. hortensis. Cochl. autumnifolia. Eng. Scurvy grass. Scurvy gra
en. Desc. Pouch ~~oval~~ notched, turgid, rough, many seeded; valves bulging, blunt.
Rec. Desc. Root-leaves heart circular, entire, veined, on long leaf st. fleshy. Stem l. oblong
tting, a little indented. Stem angular. Pet. fleshy, clear white claws, greenish. Pouch
slightly notched smooth. Partition double. Seeds rough. Sea shore. Blos.
April. May —

Cochlearia. C. Coronopus. Hay. Scurvy grass.

Gen. Disc. as above.

Spec. Disc. Leaves wing-cleft. Stem diffused. Root leaves prostrate; leaflets cut in long the fore edge, entire on the back edge. Pouch kidney, heart shaped, furrowed & ridged. Branches axillary. Blos. white. Corn fields, rubbish. Bl. June. Hy.

Use. This plant was rendered famous some years ago by its ashes being an ingredient in Mrs Johana Stephens's celebrated medicine for the stone & gravel, but unfortunately it has not supported its credit. (Lightfoot)

Class 16th Monadelphia. Ord. Triand.

Juniperus. J. Virginiana. Hy. Red Cedar.

Gen. Disc. Staminate flowers. ament ovate: calyx a scale: stamens 3. Pistillate flowers. calyx three parted. petals 3. styles 3: berry 3 seeded. consisting of 3 unequal tubercles of the calyx. (Nat Bony.) cellular, with balsamy glands at base. (Virginian red cedar) leaves united by third days in threes. Perennial.

Use. The red cedar tree is a native of the United States & grows to the height of fifteen or twenty feet. Its berries are smaller than those of the true juniper. In Virginia & Carolina the berries are distilled into brandy. The leaves of this tree are now brought into notice by the investigation of Dr. Aaron Dexter Professor of Chemistry & Materia Medica in the University at Cambridge. He has found this to be the only species of juniper in the United States, whose leaves agree in their properties with those of the savine directed by Dr. Cooper as the basis of the savine ointment. (Thacher.) (Dr. Dexter is incorrect. The juniperus sabina likewise makes the genuine savine cerate. S. W. W.

Juniperus. J. Sabina. Hy. Savine.

Gen. Disc. As above. ~~Leaves opposite~~

This is an evergreen shrub which has rather prickly leaves, & produces blue berries, only after it has arrived at a considerable age. Its stem attains the height of seven feet, & is apt to grow in a reclining posture. The wood is internally of a beautiful reddish shade, resembling that of mahogany. The leaves of savine possess a bitter acrid taste, & their smell is so powerful & disagreeable that it expels moths & similar vermin. When distilled with water this leaves yield an uncommonly large

portion of essential oil.

Savine is a warm stimulating medicine, capable of producing diaphoresis increasing all the secretions, especially from the uterus. It has long been considered a powerful emmenagogue, & Dr. Home asserts that in five cases of obstructions of the menses, four were cured by the savine, which he gave in powder from a scruple to a drachm, twice a day. But this acrid & heating substance in the opinion of Dr. Cullen is improper in plethoric habits, & should be employed with caution in those cases only which proceed from a relaxed state of the solids.

The oil distilled from this shrub is one of the most violent emmenagogues & ought therefore to be used with the greatest caution in obstructions of the uterus or other viscera proceeding from laxity or weakness. Savine is also used as an anthelmintic, & said to be very efficacious in the cure of the gout. Externally the leaves are applied in the form of powder or infusion, to exfoliations, bones, & old ulcers; & in cases of prave, gangrene, & tinea. Farriers apply this article with success to the ulcers of horses. (Thacher)

Monadelphia. Polyand.

Althea. A. Officinalis. A. Ibiscus. A. vulgaris Malva. Hog. Mark Mallow.

Hymoth.

Gen. Desc. Cal. double; outer nine cleft. Capsules many, one seed in each.

Spec. Desc. Leaves undivided, angular, cottony, obscurely lobed, doubly serrate, ovate egg-shaped; very soft like velvet on leaf stalks. Stem upright a yard high, cylind. velvety, branched. Flowers in panicles, axillary, on foot stalks. Petals pale flesh colour. Pet fringed at base, nicked. Cal. sometimes eleven or twelve. Salt marshes & banks of rivers. Bl. Aug.

Use. The dry roots boiled in water, give out half their weight of a gummy matter, (nearly allied to gum arabic, tragacanth, starch &c. &c. dissolving more of this resinous substances more readily than the first. Buchholz) which on evaporating the aqueous fluid forms a flavourless yellow mucilage. This mucilaginous ~~part of the plant~~ matter is the medicinal part of the plant.

64 & is commonly employed for its emollient & demulcent ~~powers~~ qualities; its use is recommended where the natural mucus of the membranes becomes acrid or abraded, for obtunding & incrassating acrimonious thin fluids, in tickling coughs from the deflexions of the fauces & lungs, in hoarseness, erosions of the stomach, & intestines, strangury, & for lubricating & relaxing the passages in nephritic & calculous complaints. (Lewis) It is directed only in the form of a syrup, the root was formerly used in substance. (Woodville) The root & leaves have a mucilaginous, & are often used in a syrup or decoction as a balsamic pectoral for coughs & hoarsenesses. It is also found useful in nephritic complaints & the strangury, & is employed in cataplasms & fomentations against swellings. The root will turn water to a jelly. (Lightfoot) The root boiled is much used as an emollient cataplasm, & an infusion of it is very generally prescribed in all cases where mild mucilaginous substances are useful. (Heath.) See Mat. Md. vol. 1. page 41

Class 18. Syngenesia. Order 1. Polygamia Æqualis.

Tragopon. T. porrifolium. Eng. Goat's beard. Vegetable oyster.

Gen. Desc. Calyx simple many leaved; receptacle naked; great flowered stiped.

Use The porrifolium or purple goat's beard is found in meadows & not unfrequently in upland pastures. It flowers in the month of May. The succulent roots of this vegetable when cultivated in gardens are called salsify. Cows, sheep & horses eat the whole of this plant. Swine devour it with avidity but it is not relished by goats. The tender roots afford a delicious salad, & also an excellent substitute for asparagus. Dom. Enc.

Class 10th Decandria. Order 2nd Dygynia. Nat. Ord. Ericeæ

Gaultheria. G. Procumbens. Eng. Spicy Winter green. (Partridge berry, etc.)

Gen. Des. Calyx inferior, double, sides 2 leaved, inner 5-cleft: corol ovate: capsule five celled, inserted with the inner, berried calyx, nectary 10 pointed. (Procumbens) Leaves ovate. Perennial. Flowers white.

Use There is but one species of the Gaultheria known to us as a native of the U. States

is called Canadian Gaultheria or mountain tea, Groundberry, Wintergreen. It is a common & very small shrubby plant, with slender stems having at their tops four or five oval evergreen leaves, which have been used as a substitute for Bohea tea, whence the name of mountain tea. This tea has been used with success in alleviating the asthma. Dom. Enc. — see my Nat. Hist. vol. 1. page 80.

Class Triand. — Dygin.

Genus. P. Pratense. Eng. Timothy Grass. Cats tail grass.

Gen. Desc. Calyx indurated, 2 valved, sessile, linear, truncate, bicuspidate, corolline, 2 valved (pratense) spike long, cylindric, green. Glumes 2 or 3 flowered; panicled.

A well known favourite & native grass of the Northern & middle United States. According to Mr. Strickland (Transac. Board of Agric.) it is the same as the English Cats tail grass except that the Timothy is about a fortnight earlier than the cats tail, the effect of the change of seed & climate.

Dr. Muhlenberg: we have seen accords in the opinion.

Mr. Dean (New Eng. Farmer) says it obtained its name by being carried from Virginia to North Carolina by one Timothy Hanson. Is it possible to ascertain the accuracy of this statement? By what name is it known in Virginia?

Timothy suits a moist low ground, & if somewhat shady, it may be sown alone. On a plain it is generally sown with red clover, but as these grasses ripen at different period, it certainly is bad economy to sow more Timothy than will answer to support the clover which is very apt to lodge. But as a combination of Timothy & Clover, is preferred by horses, & the former tends to correct the tendency of the latter to injure the wind, the best way is to sow it with grain, to roll the ground, & to permit it to stand alone after the grain comes up. It may then be mixed with clover hay in alternate layers.

The Timothy will grow about four inches high in the autumn, & in the succeeding spring the grain will shelter it from the sun until after harvest, when it will have acquired sufficient strength to bear the heat of our summers. The first year after grain harvest it may be slightly pastured, but the second year it must be kept up for hay, of which it will yield an abundant crop if the ground has been well prepared. It may be pastured afterwards, & if the land be manured every spring, will keep on the same ground many years.

Timothy is commonly cut too soon, that is before it has blossomed. It is then bitter & light & bad, which weakens the stalk & frequently occasions the death of the plant; but if permitted to stand until in full blossom, the young leaves will be seen coming out from near the surface, which if the grass be then cut, will start up both vigorous, stand the sun & yield a fine pasture.

It is a common opinion among farmers that Timothy hay is better for being heated or mow burnt: but Mr. Joseph Cooper assures the editor, that this is a mere prejudice & unfounded in fact. — He justly remarked, "that cattle are the best judges of good hay, & that repeated attention to the subject has convinced him that they will seldom, if ever leave any part of bright Timothy hay which may be put before them, while on the contrary, a part of mow burnt hay will frequently be left. He also added an important fact: viz. that bright hay, even if made of coarse grass, will give yellow butter, while the best Timothy hay if mow burnt, will always produce white butter.

One acre of Timothy hay will produce thirty bushels of seed, & on good upland two tons of hay.

Timothy is spoken of in terms of contempt by Wayne, Sole & other practical English writers, the reason of which is that the heat of the sun in England is not great enough to bring this plant to perfection. Dom. Enc.

Triand. Digyn.

Dactylis. D. Glomerata. Eng. Orchard Grass

Gen. Desc. Calyx two valved, one valve smaller. corol 2 valved, awnless. contorqui. carinate. style long. Panicle straight, spike lateral flowered, florets imbricate. (glomerate). a panicle condensed into a spike form head. perm.

This is a native of the U. States, & is a strong, robust, productive plant. It is ripe before timothy, flourishes well in orchard in the shade (whence its name) & lasts three years. It should be cut when young, either for hay or fodder, as its stalk becomes coarse when permitted to grow old. Sole in the 9th Vol. of the Bath Society Trans. says it is refused by all cattle, but from this assertion, & from what he says of our favourite Timothy he cannot be received as authority for American farmers. It is said that the American orchard grass is different from the grass known in Europe by that name. Dom. Enc.

Agrostis. A. Vulgare Class Triand. Digyn.
Eng. Red top. Red Grass.

Gen. Desc. Calyx two valved, ~~corol~~, ~~valved~~ flowered, ~~ventricose~~ valves acute.
corol 2 valved; stigmas longitudinally hispid or plumose; florets spreading; vulgaris
panicle spreading, glume calyx twice as long as corol. perenn.
The red top & white top are only varieties of Red grass. The latter is larger of
the two. The red top is particularly valuable, as it will grow & rod the first
year on banks, where no other grass will thrive. Com. Enc.

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Class 21 Dioecia. Ord 4. Petandria.

Cannabis. C. Sativus. Eng. Hemp.
Gen. Desc. Staminate flowers - calyx five parted. Pistillate flowers - calyx five
leaved, entire gaping laterally: styles 2: nut 2 valved, within the closed calyx. sativa
stem hairy leaves digitate staminate flowers solitary - Annual.
This is a valuable plant which grows wild in the East Indies, & is cultivated to a very
considerable extent in Britain & the U. States. It thrives most favourably on a sandy
moist loam, or on old meadows & low bottoms near rivers, & is propagated from seed
which is sown in the proportion of eleven pecks, or two bushels per acre, broad cast; the
much smaller quantity will answer, if it be drilled. The proper time for sowing
hemp is from the middle to the end of April, or even a month later; but the
best crops are generally produced from the earlier seed.

This useful plant requires no weeding, the male or fimble is usually fit for
pulling in the middle of July or about nine weeks after it is sown. The female termed
cola or seed hemp is seldom gone till September when it is pulled, tied in bundles
set to dry; at the end of ten days they are loosened & the head or tops are held up
a handle by one person, while another with a small threshing flail, beats out
the seed. Besides the strong cloth & other articles made from it, hemp is of considerable
utility for other purposes. The refuse, called hemp shaves afford an excellent fuel;
the seeds yield by expression a fine oil, which is peculiarly adapted for burning
in chambers, & is perfectly limpid & possesses no smell. Another valuable prop-
erty of hemp is that it effectually expels vermin from plantations of cabbages
or if it be sown on the borders of fields &c. planted with that vegetable, or cates

pillars without it. When fresh hemp has a strong narcotic smell; the water in which it has been soaked is said to be in a high degree poisonous, & to produce fatal effects immediately after drinking it. The seeds have an unctuous sweetish taste; they may be triturated with water, or boiled in milk as an emulsion which is occasionally taken as a domestic remedy in coughs, heat of urine, & similar complaints. Dom. Enc.

Class 15th ~~Tetradynamia~~ Monadelph. Ord. Decand.

Geranium G. Robertianum. Eng. Herb robert.

Gen. Desc. Calyx five leaved: corol 5 petalled, regular: nectariferous glands 5 adhering to the base of the long filaments: anthers 5, 1 seeded, ovoid, beaked at the head of the receptacle: ovum naked, strait. robertianum calyx 10 angled pilose, peduncles 2 flowered, leaves in 3 or 5 three cleft divisions. Annual. Fl. June.

Use. This herb is in great repute among many farmers, for its efficacy against staling of blood, & the bloody flux in cattle; in which cases it is said to be preferable to most of the remedies used on such occasions.

In Germany, the Herb Robert is employed in the process of tanning, & Dambourney obtained from this, as well as from all the other species of Geranium, a more or less durable yellow dye. Dom. Enc.

Class 5. Penland. Ord. Monogyn.

Lonicera. L. Periclimenum. Eng. Woodbine Honeysuckle.

Gen. Desc. Corol. tubular, 5 cleft: unequal: very ~~two~~ or 4 celled: seeds many. (Semperviren tube of corol dilating upwards, woody. Flowers red. exotic. flowers from June to August.

Use. It is eaten by cows, goats, & sheep, but refused by horses. The beauty & grace of its variegated flowers, render this species a pleasing ornament of our gardens, hedges, & arbours. The best as well as the easiest method of propagating it is by layers & cuttings, both of which readily strike root & form plants that are fit to be set out in one year. The ripe berries are strongly purgative. Dom. Enc.

Class Cryptogamia. Ord. 1.

uisetum. E. Hyemale. Eng. Reed Horsetail. Prop. Cat-tail.

n. Desc. Fruit placed under peltate bodies which are arranged in whorls forming a
ike form racemes; four spiral filaments surround the seed (probably) which resemble
eil globules. (Reptile) places mostly hairy. The stems of all are jointed with toothed
caths at every joint, & usually longitudinally striated & hollow. (Hyemale)
rtile stem simple naked, sheaths broad, sharp black distinct.

Use. It is a most troublesome weed in pastures, & is seldom touched by cows unless
ressed by hunger, when it occasions an incurable diarrhoea: it is eaten with impu
ity by horses, but it is noxious to sheep. This rough grass is employed for cleaning
polishing tin vessels. According to Gleditsch, this species, as well as the Ple
ale, or River horsetail, are of considerable service in tanning or dressing leather.
rm. Linn.

Class 13th Polyand. Ord. Pentagyn.

Hypericum. H. Perforatum. Eng. Common St. John's Wort.

er. Desc. Calyx five parted, divisions subovate: corol 5 petalled: filaments 5-
n united at the base in 3 or 4 sets: styles 2 to 5: capsule roundish with a number of
lls equal to the number of styles (Perforatum) stem 2 edged. leaves oblong having
ellucid dots. Perennial fl. yellow.

Use. It is eaten by goats, though refused by horses & hogs. The leaves are said
o destroy worms, & the semi-pellucid dots found on them yield on distillation an
essential oil. In Sweden the flowers are used to impart a hazel tinge to spirit
& the whole plant when dried & boiled in alum water, communicates yellow or
brown red shades to yarn. The red bearing tops contain a fine red colour, that
appears on friction between the fingers; & more than any other vegetable, re-
sembles gum lac. Dom. Linc.

The Hypericum Perforatum or Common St John's Wort, according to Barton, infused
in spirits, is a valuable remedy in diarrhoea & in obstructed perspiration. Mr. Ba-
ton was affected in this way & after many various remedies to no effect, one day
in this state of any indisposition met with a neighboring gentleman, who

The mode of Bitters was by infusing the dried flowers & the top leaves of the herb called St. John's Wort, in Brandy & exposing to the heat of the sun five or six days to digest. I immediately procured some of the Bitters from another friend & took a small wine glass full. This very soon produced a gradual warmth in the stomach & bowels. Towards the close of the day I repeated the dose, but in somewhat smaller quantity. For three succeeding mornings I continued it.

The gentleman who favored me with the medicine, & another with whom I also conversed concerning it, had, I found, invariably used it with success in their own cases of a like nature. The former told me, he had recently taken three glasses in the course of a night, when afflicted with a violent diarrhoea; & that he was cured by that quantity. In my own case, the fact is, that I have had but one slight attack of the diarrhoeal symptoms since I took the medicine; & that was in the evening of the first day on which I used it. Since then I have been recovering my appetite, strength & spirits, & my natural state of body seems now restored. I firmly believe this medicine has produced this effect.

The St. John's Wort grows abundantly in our neighborhood, & probably in most parts of this country. (Lancaster Pennsylvania.) It seems to be pretty generally known to people here of German extraction, by whom it is considered as a specific in cases of diarrhoea, both for adults & children. The season in which it is gathered & dried is from the end of June to the end of August, when the flowers disappear. It is in bloom on St. John's (Baptist) day when our people say it ought to be taken in.

Dr. Muhlenberg first recommended this plant in diarrhoeas & dysenteries. It is I suppose the balsam or essential oil which is to be found in the perforations of the leaves or petals, which impart a fine colour to the spirit in which the flowers are infused.

When it is given to children for what is called "the summer disorder" or "vomiting & purging" Dr. Muhlenberg recommends this tincture prepared with brandy, with the addition of a small quantity of cinnamon. This

may be mixed with a little sugar & water when the medicine is administered. It says also that it ought not to be given in dysentery, until some evacuating medicine has been previously used. But this precaution is not necessary in cases of mere diarrhoea. W. B." Phil. Med. & Phys. Jour. Sec. by Mat. Md. vol. 1. p. 87.

Class 14th Order 1.

Cynoglossum. C. Officinale. Eng. Hyndsp.

Gen. Desc. Corol. with the under lip 3-parted. Its intermediate division sub. ren. Stamens distant. (Officinalis) leaves lanceolate obtuse entire, hairy. pl. biennial.

Obs. It grows to the height of 18 inches; is a very hardy plant, & may be propagated either by slips or cuttings, or by seed. The leaves have an aromatic smell, & a somewhat pungent taste. They are particularly recommended in removal asthmas, coughs, & other disorders of the breast & lungs being thought powerfully to promote expectoration. According to Ray these leaves are of great service when applied in cataplasms to bruises, the pain of which they speedily mitigate, & at the same time disperse every mark or spot, from the part affected. Dom.

Class 10th Order 1.

Kalmia. K. Angustifolia. Eng. Narrow leaf Laurel. Nat. Ord. Ericaceae

Gen. Desc. Calyx 5 parted. Corol wheel salver form. with 10 horns beneath & 10 cavities within. Capsule 5 celled (Angustifolia.) Corymb terminal. plant small. ~~perennial~~ woody. flowering.

Obs. Grows on sandy heaths & dry poor soils.... Bees collect a deleterious honey from this plant which produces very disagreeable symptoms in those who eat of it. An ingenious experimental inaugural dissertation was published in Philadelphia in 1802 by Dr. Thomas, upon this species of Kalmia, from which it appears that the leaves of this & the broad leaved laurel abound with resin but that the narrow leaved is the most active of the two. From the same dissertation we find that a decoction of the K. Latifolia, broad leaved laurel, prepared by putting one ounce of the leaves in eight ounces of water, & boiling it down to four ounces, cured a diarrhoea of eight weeks continuance. The dose at first was thirty drops, six times a day

but for relieving vertigo. it was diminished to four times a day. The itch was speedily cured by washing the parts with the decoction.

The Scald head, Tinea Capitis, was also cured by anointing the head with an ointment, made of the leaves & hog's fat. Dr. Barton bears testimony of the efficacy of this ointment in the Tinea. Dom. Enc. See my Mat. Med. vol. 1. p. 91

Class 5. Order 1.

Solanum. S. Lycopersicum. Eng. Love Apple.

Gen. Desc. Calyx permanent: corol bell, or wheel form, 5 lobed, plaited: anthers thickened with two pores at the top: berry contains many seeds.

Use. A native of the West Indies whence it has been introduced into our gardens.

The love apple is greatly esteemed at table: it is either used in soups or broths, to which it imparts an agreeable taste; or it is boiled & served up as a garnish to dishes of animal food.

The cultivation of this excellent vegetable is rapidly extending in Pennsylvania, where a few years ago it was scarcely known. The apples stewed make an excellent sauce for fish: & a fine catsup, which is used by the French in a variety of dishes. Ibid.

Class 17th Order 10

Lupinus. L. Albus. Eng. White Lupine.

Gen. Desc. Corol 2 lipped: anthers 5 oblong, & 5 roundish: legume coriaceous, bow nose.

Use. The seed of the white Lupine have a leguminous, tho' disagreeably bitter taste, & are said to be vermifuge, both when taken internally & applied externally. Some authors, however, suppose them to be of a poisonous nature; yet such seeds were much used by the Greeks as an article of food, & have been recommended by Galen as affording wholesome aliment. Bechstein says that its flowers furnish the bees with abundance of honey. Ibid. (The seed are used by many for coffee, & it is said that they are a good substitute. S. W. W.)

Class 2. Order 2

Circaea. C. Lutetiana. Eng. Enchanter's Nightshade.

Gen. Disc. Calyx 2 leaved: corol 2 petaled. capsule bifid, 2-celled, not gaping: cells 1. seeded (Lutetiana) leaves ovate, a little toothed. perm. fl. white.

Obs. Darwin says two male, one female. It was much celebrated in the mysteries of witchcraft, & for the purpose of raising the devil, as its name imports. It grows amid the mouldering bones & decayed coffins in the ominous vaults of the ruined church in Lincolnshire (Eng.) The superstitious ceremonies or histories belonging to some vegetables have been truly ridiculous. Thus the Druids are said to have cropped the Mistletoe with a golden axe or sickle, & the Bryony or mandrake was said to utter a scream when its root was ~~taken~~ drawn from the ground, that the animal which drew it up became diseased & soon died; on which account when it was wanted for the purpose of medicine, it was usual to loosen or remove the earth about the root, & then to tie it by means of a cord to a dog's tail, who was whipped to pull it up, & was then supposed to suffer for the impiety of the action. And even at this day bits of dried roots of Peony are rubbed smooth & strung, & sold under the name of anodyne necklaces, & tied round the necks of children to facilitate the growth of their teeth: add to this that in Price's History of Cornwall, a book published about ten years ago, the Virga Divinatoria, or Divining rod has a degree of credit attached to it. This rod is of hazle or other light wood, & held horizontally in the hand. It is said to bow toward the ore whenever the Conjuror walks over a mine. A very few years ago in France, & even in England, another kind of divining rod has been used to discover springs of water in a similar manner, & gained some credit. And in this very year, there were many in France & some in England who underwent an enchantment without any divining rod at all, & believed themselves to be affected by an invisible agent which the Enchanter called Animal Magnetism. (Bot. Garden

Class 5. Order 2.

Apocynum. A. Androsemifolium. Eng. Dog-bane.

Gen. Desc. Corol bell-form: stamens alternating with five filamentous pointed nectaries: stigma broad, almost sessile. Follicles long linear. Androsemifolium cymes, corol spreading. Green, red flower.

This is a fly catcher. In the Apocynum Androsemifolium, one kind of Dog-bane, the anthers converge over the nectaries, which consist of five glandular oval corpuscles surrounding the germ; & at the same time admit air to the nectaries at the interstices between each anther. But when a fly inserts its proboscis between those anthers to plunder the honey. They converge closer & with such violence as to detain the fly, which thus generally perishes. This account was related to me by R. W. Darwin Esqr. of Elston of Nottinghamshire who shewed me the plant in flower July 2nd 1788, with a fly thus held fast by the end of its proboscis, & was well seen by a magnifying lens, & which, in vain repeatedly struggled to disengage itself, till the converging anthers were separated by means of a pin: on some days he had observed that almost every flower of this elegant plant had a fly in it thus entangled: & a few weeks afterwards, favoured me with his further observations this subject.

"My Apocynum is not yet out of flower. I have often visited it, & have frequently found four or five flies, some alive & some dead, in its flowers; they are generally caught by its trunk or proboscis, sometimes by the trunk & a leg: there is one at present only caught by a leg. I dont know ~~in~~ that this plant sleeps, as the flowers remain open in the night; yet the flies frequently make their escape. In a plant of Mr. Cardinos, an ingenious gardener at Newark, who is possessed of a great collection of plants, I saw many flowers of an apocynum with three dead flies in each: they are a thin bodied fly, & rather less than the common house fly: but I have two or three other sorts of flies arrested by the plant.

Bot. Gard.

Class 8th Order 1.

Tropaeolum. T. Majus. Eng. Nasturtion. Greater Indian Cress

Gen. Desc. Calyx 4 or 5 cleft, colored, spurred: Petals 4 or 5, unequal; nuts leathery beaked. (Mayo) leaves peltate, green. Fl. yellow. Exotic.

Miss P. C. Linnaeus first observed the Tropaeolum Majus to emit sparks of light or flashes in the morning, before sunrise in the months of ~~May &~~ June or July, & also during the twilight in the evening, but not after total darkness came on; these similar scintillations were shewn to her father & other philosophers; & Mr. Wilcke celebrated electrician, believed them to be electric. Nor is this more wonderful than the electric eel & torpedo should give shocks of electricity; & in this plant & those animals, perhaps, it may be a mode of defence, by which it harasses & destroys the night flying insects which infest it; & probably it may emit the same sparks during the day, which must be then invisible. This curious subject deserves further investigation. The ceasing to shine of this plant after twilight might induce one to conclude that it absorbed & emitted light like the Bolognian phosphorus, or calcined oyster shells. The light of the evening, at the same distance from noon, is much greater as I have repeatedly observed, than the light of the morning; this is owing I suppose, to the phosphorescent quality of almost all bodies in a greater or less degree which thus absorb light during the sunshine, & continue to emit it again for some time afterward, tho not in such quantity as to produce apparent scintillations. The nectary of this plant grows from what is supposed to be the calyx; but this supposed calyx is coloured; & perhaps from this circumstance of its bearing the nectary should rather be esteemed a part of the corol. - Ibid. See My Nat. Hist., page 121

Class 19. Syngenesia. Ord. 2. Frustanea

Calendula. C. Officinalis. ~~The~~ Eng. Marygold.

Gen. Desc. Recept. Nudum. Papp. 0. Calyx Polyphill. aequalis. Sem. disci membranaceum

In Sweden a very curious phenomenon has been observed on certain flowers, by M. Haggorn, Lecturer on Natural History. One evening, he perceived a faint flash of light repeatedly flash from a Marygold: surprised at such an uncommon appearance he resolved to examine it with attention. & to be assured that it was no deception of the eye, he placed a man near him, with orders to make a signal the moment he

They observed the light. They both saw it constantly at the same moment. The light was most brilliant on marygolds of an orange or flame colour; but scarcely visible on pale ones. The flash was frequently seen on the same flower two or three times in quick succession but more commonly at intervals of several minutes; & when several flowers in the same place emitted the light together it could be observed at considerable distance. This phenomenon was observed in the months of July & August, at sun set, & for half an hour after, when the atmosphere was clear; but after a rainy day, or when the air was loaden with vapours, nothing of it was seen. The following flowers emitted flashes more or less vivid in this order.

1. The Marygold (Calendula Officinalis)
2. Garden Nasturtion (Tropaeolum Majus)
3. Orange Lilly (Lilium bulbiferum)
4. African Marygold (Tagetes patulae & erecta)

Sometimes it was also observed on the Sun flower (Helianthus annuus). But bright yellow or flame colour seemed in general necessary for the production of this light; for it was never seen on the flowers of any other colour.

From the rapidity of the flash & other circumstances, it might be conjectured that there is something of electricity in this phenomenon. It is well known that when the pistil of a flower is impregnated, the pollen bursts away by its elasticity, with which electricity may be combined. But M. Hagorn, after having observed the flash from the orange lilly, the anthers of which are a considerable space distant from the petals, found that the light proceeded from the petals only; hence he concludes that this electric light is caused by the pollen, which in flying off is scattered upon the petals. Ibid.

Malva. M. Sylvestris. Eng. Common Mallows. (Class 16. Order 3.

Gen. Des: Calyx double, outer one 3. leaved, inner one 5 cleft: capsules many: 1. seeded (sylvest) Stem erect. leaves with seven sharpish lobes. peren. Fl. Blue-

Use: The leaves of the common Mallow possess a mucilaginous mild tasteless, & were formerly often used in food, with a view to prevent costiveness. A strong decoction of this plant are sometimes prescribed in dysenteries, & urinary complaints. Tho' it is usually employed in emollient cataplasms, clysters & fomentations. The flowers are eagerly visited by bees, which obtain from them an abundant supply of honey. — All the species of mallow both indigenous & exotic are beautiful plants, well calculated for ornamenting gardens, & affording grateful food for cattle; as they may easily propagated by seed. Dom. Inc.

Class 3. Order 2.

Poa. P. Pratensis. - Eng. Meadow Grass -

Gen. Des. Calyx 2. valved, many flowered: corol ovate; valves 2. coloured, acutish, scarious, at their margins; rikelets of the flowers ovate, awnless. (Pratensis) panicle diffuse. rikelets 4 flowered. Peren.

Use. It grows on dry banks, & even on walls: it flowers in the month of May, & fruits. This plant thrives better in dry than in moist situations, where it retains its verdure during hot & dry seasons longer than any other vegetable. Its root spreads along the ground almost as rapidly as the couch grass, & is nearly as difficult to eradicate: it ought therefore to be introduced with great caution, where the pasturage is not intended to be permanent. Though eagerly eaten by cattle, & esteemed to be one of the best grasses for hay, its value decreases as its quantity every year diminishes in dry soils: & it at length produces very indifferent crops. This diminution is occasioned by its roots matting together, & exhausting the land: which effects however, may be prevented by manuring the soil, & are not so perceptible on moist ground where the plant will flourish, tho' not so luxuriantly as in dry situations. Ibid.

Class 14th Didynamia. Order 1st Gymnospermia.

Scutellaria. S. Lateriflora – Eng. Skull-cap. Hooded Willow Herb. Mad-dog-Weed.

Gen. Desc. Calyx with an entire mouth which is closed with a lid after the corol falls. Tube of corol bent (Lateriflora) branching leaves smooth with a rough keel, racemis lateral & axily. perem. flower blue.

A native perennial plant growing on the banks of rivers & the borders of ponds. flowering in the months of July or August. Its square stem is branched & attains the height of two feet. The leaves are heart shaped, narrow-rounds on short petiotals & scallopped. The flowers are blue in pairs on pedicels from the alae of the leaves & pendulous. The herb is bitter & has a garlic smell. it is eaten by cows & sheep & goats. but is refused by horses & hogs. Thacher.

Use. This plant has recently & deservedly come into much repute for the cure of the bite of a mad-dog, or Hydrophobia. The virtues of it were first discovered by Jesse Lewis of West-Chester in the state of New York. & by him after successful trial in upwards of three hundred cases both in men & animals who were bitten by rabid animals. communicated to the world. The method in which the Lewis's used the plant was to make a strong decoction or tea of it & let the patient drink of it constantly for forty days, omitting every third day for the purpose of taking some gentle purative. They used for this purpose flowers of sulphur. Care should be taken to wash the wound frequently in the day with a strong decoction of the plant. Nothing is said with regard to excision, or cutting out the bitten part yet this is a practice which ought never to be dispensed with. it should be done as early as possible, & afterwards use the plant as above directed. Perhaps we cannot be justified in asserting that anything will cure the complaint after the symptoms have commenced. yet we have full & decisive evidence from physicians & others in all parts of the country in favour of its preventive effects in warding off this most terrible of all human maladies. & the Editor of the Evening Post. Mr. Coleman Esq. has mentioned instances of its performing a cure even after the symptoms had commenced. Its virtues are now completely established, & we may as well deny the efficacy of vaccination towards preventing the small-pox, as this

80 Dr. Mott a celebrated Professor of Surgery in the University of New York, in a letter to me, upon the subject of Hydrophobia, says. "After excision I most certainly would take freely of the Scutellaria. Tho. we have no proof of its having the disease when it actually had invaded, yet the evidence is strongly presumptive of its having prevented it. If it were my own person, after excision I most certainly would take it." — For further information on this subject see Thacher's Dispensatory (S.W. Williams) not to be published)

Cartheuser a German writer informs us, that the whole of this astringent vegetable may be employed for dying Black, with the addition of green vitriol. (Thacher)

Class 6. Order. 3. Nat. Ord. Asparagi.

Medeola. M. Virginica. Eng. Indian Cucumber. Cucumber root.

Gen. Des. Calyx 0. corol deeply six parted, revolute: berry 3-seeded (virginica)

Leaves in distant whorls. perm. Flow. white.

Obs. A genus of plants containing two species one of which Virginica is a native of the United States. It is called Indian Cucumber. The root is eaten by the Indians. The Editors of the Medical Repository call it the Delicate Cucumber Root.

Dom. Loc. It is highly diuretic. & is used in Dropsies.

Class 17. Order 10.

Melilotus. M. Officinalis. Eng. Melilot. Trefoil. Melilot clover.

Gen. Des. Flowers racemed: calyx tubular 5. toothed: keel simple shorter than the wings & banner: legume ovate, longer than the calyx (officinalis) stem erect stipules lanceolate. Fl. white.

Obs. An exotic plant growing on a stiff soil; on ditch banks; in thickets, hedges corn fields & meadows. Flowering in the months of June & July. This plant is eaten by sheep, goats, cows, hogs, & particularly by horses, which devour it with great avidity. Its fragrance increases when dry, & if its flowers be distilled they yield a water, which, tho. possessing little odour in itself, imparts a very grateful flavour to other substances. — Bechstein remarks that the common

Melilot is frequently covered with mildew which renders it extremely pernicious to cattle. Thus in Virginia a distemper prevailed lately among sheep great numbers of which died of a putrid fever. Because this & other species of clover were thought the whole summer affected with the mildew: nay even the hays were then uniformly in a state of putrefaction. Withal. The Melilot is a principal ingredient in the Hedgehog bone ointment (S. H. M.)

Class 3. Order 2.

Milium. M. Effusum. Eng. Millet. Millet-Grass.

Gen. Desc. Calyx 2 valved, flowered, ventricose: corol 2 valved, very short: stigmas pencil form (Effusum) panicle awnless. exotic.

Use. Millet grass is a native of Britain grows from 5 to 6 feet in height in most shady woods, & flowers in the months of May & June. This plant is very beautiful. & tho' it has no useful property to recommend it to the industrious farmer, yet it deserves to be cultivated in shady gardens on account of its fragrant flower. Its seeds are eaten with great avidity by linnets. Besides its utility for feeding poultry, millet is highly esteemed for making puddings. & by many preferred to rice. As an article of food, however it is by no means equal either to blanched oats or barley. & ought not to be eaten by persons whose organs of digestion are weak, or impaired. Dom. Luc.

Class 14. Order 1.

Leonorus. L. Cardiaca. Eng. Mother-Wort.

Gen. Desc. Calyx 5 angled, 5 toothed. corol with the upper lip vaulted, flat, entire, lower lip 3-parted, middle division undivided. (Cardiaca) upper lip 3-lobed, entire. Stem. flower white.

Use. It grows in hedges, rubbish, on dung hills, & calcareous soils; flowering from June till August. The leaves of Motherwort possess a strong, disagreeable, & bitter taste. Dambourney dyed woolen cloth of an excellent dark olive colour, from a decoction of this plant. (Dom. Luc.) It is said to cure convulsions, obstructions of the viscera, & to kill worms. some account it excellent in diseases of the spleen. &c. Books.

Class 18. Order 2.

Artemesia. A. Absynthium. Common Wormwood.

Gen. Desc. Calyx imbricate, with scales rounded, converging: egret O: receptacle somewhat villous or naked. (Flowers mostly rounded) Leaves Pinnatifid. (Absinthium) divisions of radical leaves obtus. of stem leaves acutish. peren. Exotic.

Use. It grows on road-sides, rocky places, & on rubbish; it flowers in August. The herb is extremely bitter; & if it be infused in water in the room of hops, it renders the ale very pernicious to health, on account of its intoxicating effects. On distilling the leaves & flowers they yield a considerable quantity of essential oil, which is used both externally & internally for destroying worms. If the leaves be put into sour beer they speedily correct its acidity; & being excellent antiseptics they are often employed in fermentation to resist putrefaction. According to Withering, an infusion of the leaves is a good stomachic; & with the addition of fixed alkaline salts, proves a powerful diuretic in some dropsical cases. The ashes produce a fixed alkali than most other vegetables. The infusion of the same herb given to a suckling woman, renders her milk bitter, & if the plant be eaten by sheep, it also imparts a bitterness to mutton. Altho. turkeys are fond of it (on the authority of Mr. Wolfear) yet it is not relished by horses & goats, & it is refused by cows & swine. If the plant be macerated in boiling water, & repeatedly applied to a bruise, by way of cataplasm, it will not only speedily remove the pain but also prevent the swelling & discoloration of the part. In dyeing, a decoction of the common wormwood produces, with the addition of alum &c. various shades of yellow; & if such liquor be applied to bedsteads, chests of drawers & similar articles it prevents the generation of vermin. The smoke arising from the lighted bundles of this herb, expels bees from their hives, when honey is to be collected without destroying these useful insects. D. Enc.

See my M. M. vol. 1. page 51.

Class Cryptogamia. Clandestine Marriage.

Osmunda. O. Regalis. Eng. Royal Osmund. Flowering Fern, or Royal Osmund.

"The fair Osmunda seeks the silent dell,
The ivy canopy, & drinking cell;
Where hid in shades clandestine orbs approves,
Till the green hoping betrays her loves." (Darwin,

This plant grows on moist rocks; the parts of its flower or its seed are scarcely visible; whence Linnaeus has given the name of clandestine marriage to this class. The younger plants are of a beautiful pale green. It grows in moist places & boggy marshes; bearing flowers in the months of July & August.... It is remarkable that impressions of the leaves of this vegetable are frequently met with in the nodules or small masses of iron stone found in the mines of Colebrook Dale. The root of the Osmund Royal, boiled in water, affords a thick mucilage, which, in the North of Europe, is employed as a substitute for starch, to stiffen linen. On account of its viscid, astringent nature it was formerly used in the gout, as well as in the rickets. It appears, however, to be better calculated for external applications, in contusions & bruises, of which it is said to be a powerful discutient;... as it moistens & softens the skin, it makes a tolerable cosmetic; & is recommended for its property of dispersing freckles, & other pimples from the face. Dom. Pur.

Class 18th Order 2.

Chrysanthemum - C. Leucanthemum. Eng. Ox. eye. Daisy. White Weed, Moon flower.

Gen. Char. Calyx hemispherical, imbricate, with the scales membranous at the margin: receptacle naked: pappus none, or a narrow margin. Leucanthemum leaves clasping, obtuse cut pinnatifid radical ones obovate, flowers fl. white - Dry meadows & walks flowers in July & August.

Use. The young leaves of this vegetable may be eaten in salads. Horses, goats, sheep eat this plant, but it is refused by cows & swine. ... Bradley recommends the cultivation of this elegant flower by dividing the roots, & planting them on the edges of gardens three inches deep; as it grows quickly in any soil, but may

or water as soon as planted — Dioscorides informs us that the leaves of the fir white or daisy, when bruised afford a good application to cold & scirrous tumours & that a decoction of them, if taken by persons subject to the jaundice, immediately after coming from the Tepid bath, will tend to restore their natural colour; (we have had no experience of its medicinal effects. Ibid.)

See my M. M. vol. 1. page 64 —

Class 20th Order 16th

1 Pinus. P. Abis Americana. Eng. Common-hemlock tree.

Gen. Desc. Staminate flowers. calyx four leaved: stamens many: anthers naked. Pistillate flowers — Calyxes in strobils or cones, scales 2. flowered: pistil 1: nut with a membranaceous wing (perhaps more properly a samara) woody — (Canadense) leaves flat denticulate, 2 ranked.

Use. It grows to a great height & size, especially in swampy ground, & is very straight. Its grain is coarse, & is not easily split. but is sawed into planks, joists & lathes. It holds a nail well, but if put in a house unseasoned, & exposed to alternate moisture & dryness, it rots in the course of two years. This fact was mentioned when treating of houses but it was also stated that young, well seasoned hemlock was as durable as most other timber. The bark is used for tanning; it communicates a reddish appearance to the leather. The Indians dye their splints for baskets of a red colour with it. The balsam of the hemlock is used in medicine but is sparingly collected. Ibid. — The leaves & branches boiled in water make an excellent fomentation for acute pains & bruises — S. W. W.

2. Pinus. P. Abis Balsamea — Eng. Balm of Gilead fir tree —

Gen. Desc. As above — Leaves flat, emarginate.

Use. This balsam exudes spontaneously from the trunk of the tree. It is of a light yellow colour, tenacious & inflammable. By keeping, it becomes thicker; its smell agreeable; its taste pungent. It is soluble in alcohol, & oils & affords an essential oil by distillation.

The medicinal virtues of this balsam seems to be the same as those of copaiba, & it is used for the same purposes. Its dose is from thirty to fifty drops. Thacher —

Class 6. order 3.

Alisma. A. Plantago. Eng. Water Plantain - or Thorn - Wort.

Gen. Desc. Calyx 3-leaved: petals 3: capsules numerous, 1 seeded (plantago) leaves heart-ovate. perm. fl. white - Watery Places. & on the banks of rivers &c. flowers July. Aug.

Use. This acrid & poisonous vegetable is extremely deleterious to sheep & cattle; hence it ought to be carefully eradicated in the spring or summer, before it can be further propagated by its seeds. Dom. Inc. See page 164.

Class 8. Order 3.

Polygonum. P. Persicaria - Eng. Spotted Polygonum or Heartcase

Gen. Desc. Calyx inferior, 5 parted, coloured: corol 0: seed 1. angular, covered with the calyx (stamens & pistils vary in number. The calyx in some species might be taken for a corol) (persicaria) stamens 6, styles 2. peduncles smooth. stipules ciliate - annual. flowers white - purple -

Use. A native & common plant of the United States. Dr Danar of Jamaica asserts upon the authority of Mr. Helstead of Jamaica, that an infusion of the dried plant, or a decoction of the fresh plant, is a powerful promoter of urine, & very useful in the gravel. Ibid. See page 129

Class 13. Order 1.

Papaver. P. Somniferum. Eng. White or Wild Poppy -

Gen. Desc. Calyx 2. leaved, caducous. corol 4. petalled. capsule 1 celled, dehiscent by pores under the permanent stigma (somniferum) leaves clasping. annual. fl. w. ex. -

Use. It grows in gardens; flowers in the months of July & August. The juice which after making incisions, exudes from the heads of this species, is suffered to inspissate by the heat of the sun, & thus afford the drug called Opium. The extract is prepared from these seed vessels; which being less powerful than the foreign opium, is given in double quantity to produce similar effects. The seeds are very nourishing; are divested of the narcotic property of the flower, & yield on expression sweet oil, little inferior to that of almonds; hence they are often employed

is an article of diet -- Linnaeus counted in one poppy-head 32.000 seeds, & as
there are white & blue grains, we understand from an experienced gardener, that
the former, when found in heads, the capsule of which is of a bluish cast, are
most successful for propagating the species, & likewise afford a larger pro-
portion of ~~the~~ sweet oil than the blue seed. Ibid

Class 6. Order 1.

Prinos. P. Verticillatus. Fry. Black alder. Winter berry -

Gen Char. Calyx inferior. 6 cleft: corol wheel form. 6 cleft. berry. 6. seeded. verticillate.
leaves obovate lanceolate. acuminate (Berries red. permanent) woody. white flowers.

Use. It grows in moist places, generally sending up several slender stalks, to the
height of ten feet... The inner bark of this tree applied as a poultice, is much used
for promoting suppuration in tumours; & a decoction of it for preventing mortifi-
cation in wound fractures & ulcers. Joined with the bark of the Liriodendron (poplar) or Sassafras root, formed a fashionable & successful remedy in the
country for the intermittent fever. The virtues of this medicine certainly de-
serve attention from physicians. Dom. Inc.

Dr. Amos Gregg of Bristol Penn. has used the Prinos Verticillatus in in-
termittent & other fevers with great success. He generally gives three drams
of the powdered bark in six ounces of water which prevents a return of the
fever. He observes:- "When it is exhibited in powder, I am disposed to believe
that it is nearly equal to the celebrated bark of Peru. When the stomach would
retain the powder, I did not fail in a single instance; & in one case only
was it rejected. as Like the Peruvian bark it succeeded best when it was
given immediately after the sweating stage. In general I gave it alone
but to prevent diarrhoea, an effect it occasionally produced (though less
commonly than the Peruvian bark), & to prevent pain, I sometimes added
a few drops of laudanum. - In one instance only I applied it to the skin
One of my patients, a child chiv using the decoction of Prinos, discharged
Worms. It is no uncommon thing to see worms discharged during fever.
& future experiments must decide whether, in this respect the Prinos is supe-

r to the other bitter tonics. The bark of this vegetable mixes an agreeable
tic with proof spirits."

The bark is manifestly astringent. It is likewise considered by bitter & pungent.
Berries, which are of a fine red colour, greatly partake of the bitter quality; & infu
in wine or brandy might be advantageously employed in cases where bitter tinc
are exhibited. In intermittent fevers it is both given internally, & employed
ternally as a wash. On many occasions, it appears to be more useful than Pe
vian bark. It useful in mortification, united with the root of sassafras
decoction. &c. Care must be taken to distinguish our Ivy, from the swamp
ter or candle alder. Thacher. See my Med. Bot. Vol. 1. Page 107.

Class 6. Order 2.

Juncus. J. Effusus. Eng. Common or soft Rush. Bath Rush.
Gen. Desc. Glume 2. valved: Calyx 6 leaved. permanent: stigmas 1 or 3 cleft, 3 valved,
many seeded. (Effusus) culm round, smooth, panicle lateral. perem. Wet meadows
& pastures. flowers from June to August.
Use. It is eaten by horses & goats. it is also used for rush lights, & sometimes
manufactured into light baskets. The common rush is cut about midsummer
in the vicinity of Fairham, & dried in the same manner as hay; after which it
is formed into a kind of mow, & sheltered till the succeeding spring, when on ac
ount of its toughness it is usually employed for bands or ties, in fastening
hops to the poles... In a fresh state it is farther converted into brooms or
besoms for blacksmiths, & other artisans working in metals. Dr. E.

Class 2. Order 1.

Salvia. S. Officinalis. Eng. Sage.
Gen. Desc. Calyx tubular 2. lipped, under lip 2. toothed: corol ringent: filaments
transversely affixed to a helix (officinalis) leaves ternate. perem. flow. the purple
& otherwise.
Use. There are several varieties of this species, namely the common green sage, the
wormwood sage, the green & red sage, both with variegated leaves, & a peculiar thin
with red or flat thick leaves the last of which is most commonly cultivated together
with the wormwood sage. This flowers furnish bees with honey & wax. The whole
plant is exceedingly grateful to sheep, & imparts a delicate flavour to the flesh

flesh of these animals — In a medicinal view, sage moderately warms & strengthens the alimentary canal; hence in cold phlegmatic habits it excites appetite & may be of service to persons labouring under nervous debility. The best way of taking it, is by an infusion of the dry leaves used as a common tea; or a tincture or extract, made of rectified spirit & given in proper doses. These preparations contain the whole virtues of the sage, while the distilled water & essential oil possesses only the warmth & aromatic quality, without any of its bitterness or astringency. Watery infusions of the leaves, with the addition of lemon juice, form an useful drink in febrile disorders & are very grateful to the palate. Ibid.

Class 14. Order 1.

Satureja. S. Hortensis. Eng. Summer Savory.

Gen. Disc. Calyx tubular, striate: corol with divisions nearly equal: stamens distant: (Hortensis) peduncules axillary. 1 or 3 flowered. leaves lanceolate: annual. Fl. Obs. exotic.

Use. This plant is propagated from the seed which ought to be sown in August on beds of light earth. If the plants are intended to remain in the same situation, the seed should be sparingly scattered: but if they are designed to be transplanted it may be sown more closely.

Both the summer & winter savory have long been cultivated in the British gardens for culinary & medicinal purposes. Their warm, aromatic & pungent leaves are much esteemed in salads: formerly they were employed medicinally with a view to attenuate viscid humours, to dispel flatulency & to increase the appetite. According to Professor Bradley, this herb when dry & put into a bed possesses the remarkable property of expelling fleas. Ibid.

Class 8. Order 3.

Acer. A. Striatum. A Canadense. Eng. Striped or Canada Maple.

Gen. Desc. Polygamous. Calyx 5 cleft. Corol 4 or five petalled. Samaras 2 united at the base 1 seeded. woody.

Use. It is of a middling growth. The bark is beautifully variegated or striped. The leaves are divided into three very sharp pointed lobes, & finely ~~pointed~~ sawed on their edges. The flowers are produced on solitary bunches with short foot stalks & are of a greenish yellow cast. Vid

Class 20. Order 13.

Arum. A. Triphyllum. Eng. Indian Turnip.

Gen. Desc. Spatha cucullate: spadix not entirely covered with the fructification: being more or less naked above, with pistillate flowers beneath & staminate in the middle: (sometimes a few are staminate beneath) berry mostly 1 seeded, generally circular. glandular beneath (Triphyllum) leaves ternate with ovate entire leaflets naked part of spadix very long clavate. perenn. flow. purple, yellow, green.

Use. A Jam Sago is prepared from the roots of this plant. The following letter from Edwin L. M'Catt, student of medicine in the University of Pennsylvania, to Benjamin S. Barton, M.D. shews the method of preparing it:-

"Like all the Arums this species contains a very acrid juice, which may be separated by repeated affusions of cold water. By experiment I have ascertained that the proportion of fine Sago to the aggregate is one to four; two ounces of the root freed from the exterior coat, yielding half an ounce of the fine, white & delicately flavoured powder --- The process for obtaining it is very simple, consisting, 1st, In peeling off the outer coat of the roots. 2nd By reducing them to a pulp, by bruising scraping or grating. 3dly By placing the pulp in a strainer, adapted to a tub, or any convenient vessel, & pouring cold water upon it, which passes through carrying the sago & acrid juice along with it & leaving the parenchyma in the strainer. 4thly Separating the mild powder from the acrid juice by repeated ablutions. And 5. pouring off the water, & drying the

powder which is now put for use." ~ The acrimony of the recent ~~root~~ root of this plant, is well known. By drying much of its heat. It has been very beneficial in asthma especially in old people; in croup, & hooping cough. The recent root boiled in lard has been found useful in Tinea capitis. The dried root boiled in milk, in the proportion of one root to half a pint, has been advantageously employed in consumption. Some acrimony should be perceptible to the tongue & throat in its exhibition. It never affects the general circulation, says Dr. Mead. but acts wholly on the parts just named; to the glands of which it is a powerful stimulus, causing a copious secretion of mucus. (Mead

See my M. M. Vol. 1. page 52

Class 18th Order 1.

Prenanthes. P. Alba. Eng. White Prenanthes. White Lettuce. Gall of the Earth.

Gen. Des. Corol. in a simple series (or in one circular row:) calyx calicled: receptacle naked: egret simple. not sessile. (alba) flowers numerous. leaves angular & halbert form toothed. flowers nodding. perenn. flowers white.

Use. It is the famous Indian cure for the bite of venemous serpents. & is called in Savannah the Gall of the Earth. Its alkali appears to be extricable in the tobacco pipe. Its leaves are lactescent & every part of the plant is intensely bitter. J. Bonkell.

Class 18. Order 2.

Tanacetum. T. Vulgare. Eng. Common Tansy.

Gen. Des. Calyx imbricate, hemispheric; scales acuminate; rays obrotate 3-cleft: egret somewhat marginal: receptacle naked: (Flowers corymbed) (Vulgare) leaves doubly pinnate perenn. fl. yellow. exotic.

Use. This plant possesses a warm bitter taste: it is deobstruent, not unpalatable to the palate; & may be used as a substitute for hops: the tender leaves are sometimes employed to impart a colour & flavour to puddings, according to Withering. its seeds are an excellent vermifuge; & if any animal substance be rubbed with this herb it will effectually preserve

on the attack of the flesh fly. Bran tea is recommended as a preventive of the gout. From the extracted juice of this vegetable Tarrine dyers obtain a green dye. The plant is eaten by cows & sheep, but refused by horses, goats & hogs. Bom. Enc.

Class 18. Order 1.

Cardunus C. Lanceolatus. Arg. Spear Thistle.

Gen. Desc. Calyx ovate, imbricate, with prickly scales: receptacle villous: pappus filose.—

Ure. According to Withering this species vegetates on ground newly turned up, where no other weed will thrive; under the shelter it affords, new plants will speedily appear, & the whole become fertile. Its flowers like those of the artichoke, possess the property of curdling milk. It is not relished by horses, cows, or goats; & is slightly refused by sheep & swine. ~~We meet with~~

Carduus Benedictus, or Centaurea Benedicta Arg. Blessed Thistle

Gen. Desc As above — Ure. This is an annual exotic cultivated in gardens. It flowers in the months of June & July, & produces ripe seed in autumn. Its leaves possess a penetrating, bitter taste, & an ungrateful flavour, which by keeping them, for some time is mostly dissipated. A decoction of this nauseous plant is sometimes used to excite vomiting: & where a strong infusion to promote the operation of other emetics. Good effects have occasionally been derived from the Blessed Thistle, in loss of appetite, or where the stomach was impaired by irregularities. A strong infusion either in cold or warm water drank freely, occasions copious perspiration & promotes the secretions... All the species of this neglected vegetable, may be usefully employed for various purposes. Thus the seed vessels of the thistle afford both a valuable material for manufacturing paper & a kind of strong cloth. The ashes obtained by burning the whole plant are of great service in glass houses. & the young tender, fleshy stalks may be dressed & eaten as substitute for asparagus. Ibid.

Class 13. Order 13.

Clematis. C. Virginiana. C. Vitalba. Eng. Virgin's bower. Travellers Joy.

Gen. Desc. Calyx 0: petals 3. 4. 5. or 6: seeds compressed: style permanent becoming long tail (some species are dioecious) (virginiana) dioecious climbing. leaves alternate with climbing petioles. Perm. flow. white. Calcareous soils. Jul. Jun. pr.

Use. It is easily propagated by layers or cuttings. The fibrous stalks of this vegetable may be converted into paper. The whole plant is very acrid to the touch: on which account it is frequently employed as a caustic for cleansing old ulcers. Both leaves & branches may with advantage be used in dyeing & Damboreney obtained from the latter alone a yellow decoction. Buchstein observes that the hard, compact, yellow & odoriferous wood of this shrub furnishes an excellent material for veneering. Ibid. See my MS. B. p. 6.

Class 18. Order. 3.

Achillea. A. Millefolium. Eng. Common Yarrow. Nat. Ord. Corymbifer.

Gen. Desc. Calyx imbricate, ovate: erect 0: receptacle chaffy: florets of the ray 4 to 10 dilated. (flowers corymbed) (millefolia) leaves doubly pinnatifid, stem proved. Perm. white.

Use. The flowers of this vegetable yield an essential oil which possesses an aromatic odour, a bitter taste & is similar to that of chamomile. A decoction of its leaves with chamomile flowers is said to form a corroborant diet drink for children who on account of their rapid growth are unable to retain their water during the night: but for this purpose from one to two pints of such preparation ought to be taken in the course of 24 hours. Linnaeus observes, that the Dalecarlians have a practice of throwing the flowers & leaves of the common yarrow into beer, while in a state of fermentation with a view to increase its intoxicating effects. Baatsch in Germany has usually employed the whole herb in the process of tanning. Ibid.

See my M. M. vol. 1. page 27

Eupatorium. L. Perfoliatum. Eng. Thorough-wort. Bone-set.

Cap 18. Order 1. The following description of Thacher

Gen. Char. Calyx imbricated (rarely single) oblong: style long, cleven half way

Desc. Calyx imbricated (rarely single) oblong: style long, cleven half way

down: egret pilose or rough hairy-pilose: receptacle naked: Flowers 6 or more.

Perfoliatum, leaves connate-perfoliate, downy, perennial, flowers white

Char. This is a native annual plant, flourishing abundantly in wet meadows

& other moist places. The stalk is hairy & rises from two to four feet, per-

forating the leaves at each joint, from which it is sometimes called Thorough

stalk or stem. The flowers are white & appear in July or August, forming a

corymbus at the termination of the branches. The leaves at each joint are hori-

zontal, serrated & rough, from three to four inches long, & about one inch

broad at their base, gradually lessening to a very acute point, of a dark green

& covered with short hairs. Thoroughwort certainly possesses active properties,

& deserves the attention of American physicians. It acts powerfully as a pu-

rgative & emetic, & sometimes as a purgative, & has been successfully em-

ployed in intermittents & other fevers, either in decoction, or the leaves in

powder. Every part of the plant may be advantageously employed though

the flowers appear most active. A watery infusion of the leaves, is a power-

ful & not disagreeable bitter, & the flowers are deemed superior in this re-

spect to those of camomile & ought to be kept in the shops. The dried

leaves in powder, or made into pills, with limitive electuary, given in do-

ses of 12 or 15 grains are of excellent effect as a mild laxative, obviating

costiveness without inducing debility or heat; correcting bile & promoting

perspiration. This plant is frequently employed in the country as a fomen-

tation in disease of cattle. There are several species in the United States. In ana-

rarous affection of the extremities, & in ascites when it may be considered a disease

of debility, the alcoholic tincture of eupatorium may be aptly recommended as

an excellent tonic; & in addition to its tonic effects, the properties of a diuretic

render the employment of it still more advantageous in cases of this description. Thacher

Class 18. Order 1.

Arctium. A. Lappa. Eng. Burdock—

Gen. Des. Calyx globose, with scales hooked at apex: egret chaff-bristly: receptacle chaffy (Lappa) stem leaves cordate. biennial. flow. purple. Flower. July. August.

Obs. This is a common plant about way sides, sufficiently known from its scaly heads, or burs which stick to the clothes. The seed have a bitterish sub-acid taste: They are recommended as very efficacious diuretics, given either in the form of emulsion, or in powder, to the quantity of a drachm. The roots are esteemed aperient, diuretic, & sudorific: & are said to act without irritation, so as to be safely used in acute & venereal disorders, & are by some preferred to sarsaparilla. Ibid.

Class 19. Order 5.

Asclepias. A. Decumbens. Eng. Pleurisy root. Butterfly-Weed. Swallow-wort.

Gen. Des. Follicles 2. nectaries 5 concave, containing a little horn: petals reflexed.

Obs. This species of swallow wort is one of the most beautiful perennial plants, flourishing best in a light sandy soil, by the way-side, under fences, & near old stumps in rye-fields. It abounds in the Northern states, but with us it is not so frequently found. There are sometimes fifteen or twenty, or more stalks, the size of a pipe-stem proceeding from one root, rising from one to two feet in height, & spreading to considerable extent, generally in a decumbent position. The stalks are round & woolly, of a reddish brown colour on the sun-side; the leaves stand irregularly, & are spear, or tongue shaped, with a short footstalk, & covered with a fine down on the under surface. The umbels are compact at the extremities of the branches, & formed like the common silk weed, but differing from it in the colour of the flowers, being of a beautiful bright orange colour, while those of the silk-weed are of a pale purplish hue. The flowers appear in July & August, & are distinguished by their size & brilliancy from all the flowers of the field. These are succeeded by long slender pods, containing the seed, which have a delicate kind of silk attached to them. This is probably the only ~~kind~~ variety of asclepias that is destitute of a milky juice. The root is shingle or carrot-shaped, of a light brownish colour on the outer surface, white coarse, & striated within. The root of this plant is a valuable addition to our Materia

dica, having been found to possess medicinal virtues of no inconsiderable importance. It has long been celebrated in Virginia & the Carolinas, as a remedy in pleurisy, & of pneumonic affections in general. It is said to display a remarkable power of affecting the skin, inducing general & plentiful perspiration without heating the body. In the form of decoction it often induces a diaphoresis, when other medicines have failed to produce that effect. We have the testimony of Professor Barton in favour of the great efficacy of this medicine in pulmonic affections — After the loss of some blood & the use of an antimonial emetic, Dr Thomas Mason of Virginia, who has used this root in pleurisy sufficient to establish its reputation, he gives his patients about half a dram of the root, finely powdered in a cup of warm water & repeats the dose every two hours until the patient is perfectly recovered, which happens frequently in three days. Dr. Mason asserts that by this simple means he has cured hundreds, & never failed in a single instance — The powdered root frequently acts as a mild purgative, but it is particularly valuable for its virtues as an expectorant, diaphoretic, & febrifuge, & in this respect its efficacy is amply confirmed by the testimony of Dr. Benjamin Parker, of Bradford, Massachusetts, from his own observation during an extensive practice in Virginia. From the successful employment of the pleurisy root for twenty-five years, this respectable physician has imbibed such confidence that he extols it as possessing the peculiar, & almost specific quality of acting on the organs of respiration, powerfully promoting expectoration, & thereby relieving the breathing of pleuritic patients in the most advanced stage of the disease; & in pneumonic fevers, recent colds, catarrhs & disease of the heart in general, this remedy has in his hands proved equally efficacious — He directs it to be given in the form of strong infusion, a teacup full every two or three hours. By many families in the country this root has been long esteemed as a domestic medicine resorted to for the relief of pains in the stomach, from flatulence & indigestion, hence the vulgar name of wind root, by which it is ~~name~~ known in some parts of the country, & from its colour it is by some called white root. It is said that by a perseverance for several weeks in the use of about one drachm of the powdered root every day the pain of the tone of the stomach, & digestive powers has been restored — Said —

Class 10. Order 1

Cassia. C. Marylandica. Eng. American Senna.

Gen. Char. Calyx 5 leaved: corol 5-petalled: anthers 3 lower ones bearded: legume membranous. (marylandica) pinnate leaflets 8 paired. flowers yellow.

Use. This plant is abundant in America, & known by the name of senna of the shops. & possesses nearly the same virtues as the earlier species. It is used as a purgative in different parts of the United States, & from the high price of foreign senna deserves to be attended to. It is easily cultivated from the seed, & ought to be generally introduced into our gardens. Ibid.

Class 3. Order 1.

Genus. C. Sativa. Eng. Garden Saffron.

Use. Saffron is a bulbous rooted perennial plant, very generally cultivated in gardens in Southern countries. The smell of saffron is pleasant & aromatic, but narcotic; the taste a fine aromatic bitter, & immediately gives a deep yellow colour to the saliva when chewed. The active matter is equally extracted by alkohol, water, proof spirit & vinegar. Saffron is remarkably fragrant & is highly esteemed, as it exhilirates the spirits when taken in small doses; but if used in too large portions, it produces immoderate mirth, & all the consequences resulting from the abuse of spirituous liquors. This drug was formerly considered an excellent remedy in hysteric affections originating from spasms, or in obstructions of the uterine secretions; but in modern practice it is seldom employed, though it enters into several medicinal preparations. The best saffron is that raised in England: it ought to be of a deep red or orange flow, fresh & tough, though neither too dry nor too moist, & of a strong but pleasant aromatic odour. The common saffron of our gardens if properly prepared by moistening with brandy & pressing into cakes, will be found a tolerable substitute for the imported drug. Ibid.

Class 13. Order 1

Genus. G. Urbanum. Eng. Avens, or Herb Bennet.

Gen. Char. Calyx 10 cleft 5 alternate divisions smaller: corol 5 petalled:

with a bent awn. receptacle columnar, villous -

e - This plant grows by fences & borders of fields the blossoms are white or yellowish only. According to Dr. Willich the root of avens has lately been employed with ular efficacy in the cure of obstinate agues. A strong tincture of the root given quantity of half an ounce, or the decoction ~~of the~~ powder, in doses of one drachm eral times a day, has seldom failed to cure intermittents where the Peruvian bark proved ineffectual. The root has also afforded an excellent remedy in several onic disorders as a general strengthener & astringent, & its antiseptic power is d to be superior to the best Peruvian bark. Dr. Withering says the roots gath- d in the spring & put into hot water give it a pleasant flavour & prevent its grow- sour. Infused in wine it is a good stomachic says Dr. Cutler. When it grows warm dry situations, its taste is mildly austere & aromatic - (Thacher)

It is a good febrifuge & is really an excellent substitute for the jesuits k in the cure of intermittent fevers, dysentery, chronic diarrhoeas, wind colics, af- tions of the stomach, rheumatic symptoms, & cases of debility

Preparation. After the patient has taken a puke of the American ipecac- nha, & the fever is off, a teaspoonful of the powder may be administered every until the fever is broke. & use my stomach bitters mentioned in this work. Fam- ial Botany in order to prevent a relapse.

The following is Mrs. Shaws preparation of Indian chocolate, which is strong recommended as an effectual cure of consumptions:- Take of avens root two ces: arum root half an ounce: in powders; ginseng & masterwort, each half ounce: sugar candy one ounce. Mix one table spoonful of these powders oil them in one quart of rain water, & one pint of New Milk for an hour - all debilitating complaints, or beginning consumptions, the patient may k two tea-cups of this chocolate, morning & evening sweetened with loaf sugar ide out every day for two hours before dinner. Thus I have made known valuable public secret, with some valuable additions which will be great utility to the community. (Henry's Medical Botany)

See my Med. Stud. vol. 1 page 82

Class 3. Order 1.

Iris. I. Virginiana. I. Pseudacorus. Eng. Water Flag. Flower de luce. Blue flag.

Gen. Desc. Calyx spathe 2 valved: corol 6 parted. divisions alternately reflected. stigmas petal like.

Use. This plant is perennial, & grows in great abundance by the brinks of rivers, & in other watery places. It blossoms in July; its flowers are blue, variegated with white, yellow & purple; its leaves are sword shaped. The root has an acrid taste, & when fresh are highly cathartic. The expressed juice of the root recently gathered given to the quantity of sixty or eighty drops, every hour or two, & occasionally increased, has been productive of very copious evacuations, after jalap, gamboge & other strong purgatives had proved ineffectual. —— Thacher

Class 5. Order 1.

Lobelia. L. Inflata. Eng. Indian Tobacco. Emetic Weed.

Gen. Desc. Corol irregular, often irregularly slitted: anthers cohering & somewhat curved. stigma simple: capsule 2. or 3 celled. (inflata) capsules inflated. biennial. fl. white. Blos.

Use. The Lobelia inflata is indigenous & ~~annual~~ rising one or two feet, with branchy stems. The leaves are oblong, alternate; slightly serrated & petiole. The blossoms are solitary, in a kind of spike, of a pale blue colour. It is found common in dry fields among barley & rye stubble, & flowers in July & August; its capsules are inflated & filled with numerous small seeds... The leaves & seeds are at first insipid, says Dr. Cutler but soon become pungent, occasioning a copious discharge of saliva. If they are held in the mouth for some time, they produce giddiness & pain in the head, with a trembling agitation of the whole body; at length they bring extreme nausea & vomiting. The taste resembles that of tartar emetic.

It was employed by the aborigines as an emetic, & also by those empirics who affect to deal in Indian remedies only. It has been found to operate as a speedy & active emetic & it often induces a more copious perspiration immediately after taking, than recurs into the stomach. It has proved serviceable in cases of colic where emetics were indicated. In a variety of instances it has been administered as a remedy in asthmatic affections, & on competent authority in

assured, that it has in general manifested considerable efficacy, and
is proved more beneficial in this distressing disease than any other medicine
on some of its effects, says an eminent Physician, lobelia seems to be related
some of the narcotic plants; to the mouth & first passages it proves acrid & high
stimulant; its stimulus seems to be of the diffusive kind, as Dr. Cutler on taking
experienced an irritation of the skin over the whole body. It is probably one of the
st powerful vegitable substances with which we are acquainted & our rational
actitioners will have recourse to it but with the greatest precaution. It has
en fatal in the hands of a noted empiric. The dose in which he is said usually
prescribe it, & frequently with impunity, is a common tea spoonful of the pow-
ered seed or leaves, & often repeated. If the medicine does not puke, or evacuate
owerfully, it frequently destroys the patient, & sometimes in five or six hours.
en horses & cattle have been supposed to be killed by eating it accidentally.
Dr. Cutler, who had been affected for years with "a convulsive asthma from pulmon-
irritation of effused serum", says, I had a tincture made of the fresh plant & took
e to have the spirit fully saturated, which I think is important. In a paro-
sm which perhaps was as severe as I ever experienced, the difficulty of breathing
ame, & after it had continued for a considerable time, I took a table spoonful.
Three or four minutes my breathing was as free as ever was, but felt as nauseous
t the stomach. In ten minutes I took another spoonful which occasioned sick-
ss. After ten minutes I took the third, which produced sensible effects upon
e coats of the stomach, & a very moderate puking, & a kind of prickly sen-
tion thro' the whole system even to the extremities of the fingers & toes. The
inary passage was perceptibly affected by producing a smarting sensation in
pass urine, which was probably produced by stimulus upon the bladder. But
l these sensations very soon subsided, & vigour seemed to be restored to the con-
tution, which I had not experienced for years. I have not since had a paro-
sm, & only a few times one small symptom of asthma. Besides the violent
ttacks, I had scarcely passed a night without more or less of it, & often so as not
be able to lie in bed. Since that time I have enjoyed as good health as, per-

haps before the first attack. — A particular case has been related to me of an effectual cure of the hydrophobia, in the last stage of the disease by the use of this plant. — With the view of establishing a uniformity of strength in the preparation, the Essex district medical society have agreed that the proportion for the tincture of lobelia shall be two ounces of the dried plant to one pint of diluted alkohol. — In numerous instances of asthma it has procured the most essential relief, though in general its effects were only temporary & palliative. As a pectoral it has been found useful in consumptive & other coughs depending on mucus accumulated in the bronchial vessels by exciting nausea & expectoration. From its very speedy operation as an emetic, & its stimulating effects upon the mouth & fauces, beneficial effects might be expected from its use in croup & hooping cough; & on some trials our expectations have been realized in this respect. It may perhaps be anticipated to supersede the use of senka as a remedy in the former, & antimonials in the latter affection. — The leaves should be collected in August when the plant is in blossom, & carefully dried & preserved for use. From ten to twenty grains of the powdered leaves will in general be found a suitable dose as an emetic for an adult, or it may be repeated in smaller quantities. As a pectoral it may be given in powder or in pills alone, or combined with other remedies, repeated in small doses till an evident good result is observed. Of the saturated tincture, twenty, forty, or even sixty drops may be safely given to children one or two years old, increasing as occasion may require. (See Thacher's Disp. 2nd edition.)

Class 10. Order 10.

Phytolacca. P. decandra. Pokeweed, American Nightshade, Garget, Poke. Gen. Desc. Calyx 0. corol. 5 petalled, calyx like in perianth: berry 10 celled, 10 seeded — (decandra) leaves ovate, acute, racemes simple, term. fl. white, berries purple. Use — This is one of the most common North American plants, well known in New England by the name of cancum, skoke, or coakum. In the south

It is called ~~[illegible]~~ pokeweed. It has a thick, fleshy herbaceous root as large as a parsnip. From this rise many purplish herbaceous stalks about an inch thick in or seven feet long; which break into many branches irregularly set with large, ovate, sharp pointed leaves, supported on short footstalks. These are at first of a fresh green colour, but as they grow old they turn reddish. At the joints of divisions of the branches come forth long bunches of small whitish coloured flowers consisting of five concave petals each, surrounding ten stamina, & ten styles, which are succeeded by round depressed berries, having ten cells each of which contains a single smooth seed. The young stems when boiled are as good as asparagus, but when old they are to be used with caution, being a plant of great acrimony, operating both as an emetic & cathartic. A tincture of the ripe berries in brandy or wine is a popular remedy for rheumatism, & similar affections, & it may be given with safety & advantage in all cases where guaiacum proves. The extract of the juice of the ripe berries has been employed in some cases of scrofula; & cancerous ulcers have been greatly benefited by its application. The juice of the leaves, however is said to be more effectual.

Dr. George Hayward of Boston has found by experiment, that the root contains the most active principle of the plant, & this he gives in substance. He gives it down of a scruple of the finely powdered root, which has always acted as an emetic & cathartic. It generally commences its operation in an hour & rarely continues longer than three or four. It excites little or no nausea previous to its operation; & tho. it makes a powerful impression on the system, it never has produced any disagreeable or unusual symptoms. I have never noticed, says the Doctor, any dizziness, vertigo or stupor from it, & I have always been particular in my inquiries to ascertain if any such effects took place. In one case of the commencement of fever, it was administered with decided advantage; it continued to operate for six hours as an emetic, & entirely removed all the febrile symptoms. The root should be dug late in November, after the leaves & stalks are killed by the frost. It must then be cut into thin slices, dried with a very moderate heat & powdered for use. An ointment may be prepared by mixing one or two ounces of the powdered root of Phytolacca with a pound of hog lard & simmering them together for an hour or two, & this lard with success has cured cases of itches, where the ointment of sulphur

& mercury have had no effect. It is apt to produce after the first or second application, a great heat & burning over the whole surface on which it is applied; when this is the case it should be immediately washed off. & I never knew the same effect to follow the renewed application of it. I had the satisfaction of curing a boy with this ointment who had tinea capitis for twelve years, which had been treated in various parts of Europe & in this country, & had resisted all the ordinary applications. The hair was kept short, the head was washed night & morning, & the ointment was then ~~washed~~ rubbed all over the parts affected. He never complained of any pain or smarting, though the surface was considerably inflamed & excoriated. — [Hayward] It is affirmed by a physician of eminence the leaves of Phytolacca have been found an admirable remedy in hemorrhois. A strong infusion is given internally & if it does not speedily relieve, the same infusion is injected into the rectum. This method will in general effect a perfect cure. — According to the experience of Drs Jones & Kollock, of Savannah, this plant may be relied on as an effectual remedy for syphilis in its various stages, even without the aid of mercury; & they employ it with confidence both internally & & externally in rheumatisms & in cutaneous eruptions. One ounce of the dried root infused in a pint of wine, & given to the quantity of two spoonfuls operates kindly as an emetic. The roots are sometimes applied to the hands & feet of patients in ardent fevers. Many country people use the contact with great confidence in its efficacy in dissolving indolent tumours & in healing various kinds of ulcers. It is found to operate as a mild vegetable caustic, cleansing & healing foul ulcers better than most other remedies of the same class. In three cases of apparent fistula lachrymalis, it is reputed to have performed cures, by being applied to tumours thrice a day, for two or three weeks. This root has also been employed in compounds as an article of dyers Wash.

That noted Quack, Dr. Henry of New York, in his American Herbal, says "The root which is large, bulbous & white, is an emetic, cathartic, & discutient

Berries are stimulative, sudorific & pectoral.

Preparation. Infuse one ounce of the coarse powdered root in a pint of the
wine for a week, & you will have an excellent emetic wine: dose two table
spoonfuls which sheathes mildly, & work it off with camomile tea. Several
wonderful cures in chronic rheumatism have been effected by the following
tincture: to one pint & a half of the expressed juice of the berries add half a pint
of brandy: dose from one to two table spoonfuls night & morning, diluted
with half a pint of prickly ash tea. The root roasted & mashed with vine-
gar discusses hard glandular tumours, by applying it twice a day.

The following is the method for making my famous cancer ointment
which has been purchased of me by a great number of physicians, & always
proved effectual: take the fresh leaves & roots of young poke weed, bruise
them well in a mortar & express the juice: to one pound of fresh butter,
warm in in a frying pan till it is of a black colour, stir in half a
pint of pulverized gun powder, & hold it over the fire until it flashes once
or twice: then pour the butter thus burnt into a quart of the poke juice,
mix it well, & let it stand on the hot coals in an earthen pot until
it is boiled to the consistence of an ointment. This ointment is spread on
linen & applied over the cancer every other day, will kill the roots & fetch
them all out. Wash the cancer with a decoction of yellow dock root, boil
four quarts of water down to three, & drink half a pint of it daily twice
a day. After the roots are dead apply a poultice of bruised yellow dock
leaves, & heal the sore with the elder salve." Henry. (If any thing cure the cancer
it is the yellow dock root. See page 44. P.W.W.)

Class Cryptogamia

Polypodium - P. Filix Mas. Sing. Male Fern

Gen. Char. Desc. - Capsules disposed in round scattered dots, on various parts of the lower surface of the frond.

Hist. The fern is perennial, & grows in great abundance in almost every part of Britain, where the ground is not cultivated. The root when chewed is somewhat

mucilaginous & neut. & afterwards astringent & bitter. The vermifuge powers of fern are well known. It appears to be particularly active in expelling the tape worm. Dr. G. Jones relates the case of a Lady in New York, who after taking many worm medicines, with partial good effects, drank a decoction of fern in water, a pint per day, until some gallons were taken, when a dose of castor oil brought away the remnant of the worm, measuring forty five feet.

The fern is the famous remedy of Madame Nafer of Switzerland, for the tape worm. She acquired the knowledge of the remedy from her husband, who was a surgeon, & obtained a great price for the secret from Louis 15th of France, by whose order it was published.

The powdered plant was generally preferred by Mad. N. & may be given in doses of from ten grains to two drachms. (Thacher)

Three days:- The day before the patient was to take the fern powder he was purged with a dose of calomel & jalap, & after its operation he must take a very light supper. The next morning he was to take three drachms of the powdered fern root, & two hours afterward take another dose of calomel & jalap, & drink a tea cup full of of the skunk cabbage root tea every hour till the tape worm is expelled, taking care to sit on a close stool & not break the worm but pull it gently. In case the worm is not expelled the first day, the medicine is to be repeated the next. The tape worm has come away from a patient after taking a drachm of the powder without any purge.

Class 20. Order 16

Ricinus. R. Communis. Eng. Palma Christi. Castor oil plant.

Gen. Desc. Staminate flowers- calyx 5 parted: stamens numerous. Pistillate flowers- calyx 3 parted: styles 3. & cleft: capsules echinate, 3 celled, 3 seeded (common) leaves palmate, peltate. Annual, exotic.

Obs. This plant grows in both Indies, Africa, & the south of Europe. It also grows luxuriantly in the southern states of America, where it is now becoming an article of exports. It is of speedy growth, & in one year arrives at its full height which seldom exceeds twenty feet. The capsules are prickly & triangular, & con

under a thin dry gray & black matter [illegible]. The pith [illegible]
extremely acrid & one or two of the seeds swallowed entire operate as a drastic pur-
tive or emetic — The Seeds yield almost a fourth part of their weight of a bland
ed oil commonly called Castor oil. It is obtained from them either by expression
or decoction with water. The former method is practised in Europe the latter in
~~America~~ Jamaica. In order the produce it is common to parch the seed over
fire before the oil is extracted from them. but the oil thus obtained is infe-
r to that prepared by cold expression or simple decoction. & is apt to becom
rancid — Genuine castor oil is thick & viscid of a whitish colour insipid or sweet
to the taste & without smell.

As a medicine it is a gentle & useful purgative: it in general produces its
effects without griping & may be given with safety where acrid purgatives are
hurtful, as in colic. calculus. gonorrhoea &c. some likewise use it as a purgative
worms cases. Half an ounce or an ounce commonly answers with an adult.
a drachm or two with an infant. — With many the aversion to oil is so
great that this purgative cannot be taken without great reluctance. &
accordingly different modes of taking it have been proposed. some prefer
taking it swimming on a glass of water, of milk or peppermint water, or in the
form of emulsion with mucilage, or with the addition of a little rum. Cooke
Thomson Pl. Mat. Med. vol. 1. p. 110.

Class 13. Order 12 -

Rosa. R. Gallica. Eng. Red rose -

Gen. Char. Calyx con. form, 5 cleft, fleshy, contracted towards the top: petals 5.
and numerous, bristly, fixed to the sides of the calyx within.

Use. The Gallica, French or common red rose has large, spreading, half
double deep red flowers. It has not the fragrance of the damask rose, but
the beautiful colour of its petals & their pleasant astringency has rendered
them official. It must however be remarked, that their odour is increased
by drying, while that of the damask & moss rose is almost de-
stroyed. Thacher —

Nat. Ord. Rutaceæ. Class 10. Order 1

Ruta. R. graveolens. Eng. Rue.

Gen. Desc. Calyx 5 parted: petals concave: receptacle surrounded by 10 nectariferous dots: capsule 5 lobed. (petals sometimes 4 & stamens 8) (graveolens) leaves decompound or more, petals entire.

Use. This is a small shrubby plant, met with in gardens, where it flowers in June & holds its green leaves through the winter. It has a strong ungratefull smell, & a bitterish penetrating taste. The leaves when in full vigour are extremely acrid insomuch as to inflame & blister the skin if much handled. Some writers on Materia Medica have entertained a very high opinion of the medicinal virtues of this plant, & it is still retained in the Massachusetts & other Pharmacopeias. It has been considered as powerfully stimulating, attenuating & detersive, & hence in cold phlegmatic habits it quickens the circulation, dissolves tenacious juices, opens obstructions of the excretory glands, & promotes the fluid secretions. Boerhaave is extravagant in his praises of the essential oil & distilled water of rue for their efficacy in promoting sweat & perspiration, & for the cure of the hysteric passion, & of epilepsies, & for expelling poisons. In modern practice rue is not regarded as possessing much power as a remedy. Ibid

Class 18. Order 2.

Anthemis. A. Nobilis. Eng. Chamomile.

Gen. Desc. Calyx hemispherical, nearly equal: egrets 0, or a membranous margin: florets of the ray more than 5: receptacle chaffy, the chaffs flat with a rigid acuminated apex (nobilis) receptacle chaffy, leaflets 3 pinated linear subulate. perm. exotic.

Use. Chamomile is a perennial plant indigenous to the south of Europe but cultivated in most gardens for the purposes of medicine. The flowers have a strong not ungratefull aromatic smell, & a very bitter nauseous taste. They are so very generally employed in medicine as to render their very extensive cultivation in the United States well worth of attention. — Their active constituents are bitter extractive & essential oil. To the latter is to be ascribed their antispasmodic carminative cordial & diaphoretic effects. To the for-

to be ascribed this influence in promoting digestion. As Chamomile
ites the peristaltic motion it is useful in dysentery, but is not ~~antispas-~~
~~modic~~ admissible in all cases of diarrhoea. From its stimulating & somewhat emplas-
t essential oil. Chamomile is also capable of exciting vomiting, especially
en given in warm infusion. & in this way it is often given to assist
action of other emetics. Externally Chamomile flowers are applied as a dis-
ient, in the form of clysters, or embrocation, in colic, dysentery, & strang-
lated hernia. — Chamomile flowers are exhibited. 1. In substance,
the form of powder, or rather of electuary, in doses of from half a
ach to two drachms, either alone or combined with Peruvian bark as
r the cure of intermittent fevers. — 2. In infusion in form of tea. This may
the be drunk warm, for promoting the action of emetics, or cold as a
omachic. — 3. In decoction or extract. These forms contain only the
xtractive, & therefore may be considered as simple bitters. — 4. The es-
ential oil may be obtained by distillation. This possesses the antispas-
modic powers in a higher degree than the simple flowers, but on the
ntrary does not possess the virtues depending on the presence of the
ther extractive. It is a most agreeable addition to many pills. — Coxe

Class 10. Order 1.

Cassia. C. Marylandica. Eng. American Senna.

Gen. Desc. Calyx 5 leaved: corol 5 petalled: anthers 3 lower ones beaked: legume membrana-
ous. (maryland.) pinnate leaflets 8 paired. perm. yellow.

e. This plant which is abundant in America is of the same genus with the senna
the shops, & it possesses nearly the same virtues as the eastern species. It is used as a
rgative in different parts of the United States, & from the high price of foreign sen-
it certainly deserves to be attended to. — Coxe. See my Nat. Mis. Vol. 1. page 61

Class 10. Order 2.

Dianthus. D. Caryophyllus. Eng. Pink.

Gen. Desc. Calyx inferior. cylindrical. 1 leaved. with 4 to 8 scales at the base: petals 5 with claws: capsule cylindrical. 1 celled. Dehiscent at top (caryophyllus) petals crenate lobed. scales of calyx ovate acute. peren. fl. red. exotic

Use. This species of pink is a native of Italy. but is cultivated in our gardens. By cultivation its varieties have increased to a very great number. & they form one of the greatest ornaments of our gardens. Most of these are termed carnations. but the variety which is officinal surpasses all the others in the richness of its smell. & is also distinguished by its colour, being of a uniform deep crimson. Their only use in pharmacy is to give a pleasant flavour & beautiful colour to an officinal syrup (Cox)

Class 18. Order 2. Nat. ord. Corymbiferae

Erigeron. E. Philadelphicum. Eng. Philadelphia. or Blue Flea bane.

Gen. Desc. Calyx imbricate: egret pilose: receptacle naked. florets of the ray linear. very narrow numerous (philadelph.) stem leaves half clasping lanceolate subserrate ray florets as long as those of the disc. stem many flowered. peren. fl. July. the

Use. This is one of the most common plants in many parts of the United States. It has been used in decoction or infusion in Philadelphia. for gonty & gravelly complaints. & in some instances with much benefit. It operates powerfully as a diuretic & sudorific. It is known by the name of Skewish in Pennsylvania. which Dr. Barton supposes to be a corruption of the word Scabious. This plant is employed by the Cochin-Chinese. according to Father Lourio; who speaks of it as an active emmagogue — Ibid See page 152

Class 2. Order 1.

Gratiola. G. Officinalis. Eng. Hedge Hyssop.

Gen. Desc. Calyx 5 leaved. the two outer ones spreading: corol 4-cleft. 2 lipped. reverse. stamens 4. 2 of them barren. stigma 2 lipped. capsule 2 celled. (officinalis) leaves slightly toothed (this is the acute of Hallenberg) annual. fl. yellow — cost.

Use. This is a native of marshy situations in the south of Europe. & in the U. States. It is gathered for use when in flower. It has no smell but a very bitter nauseo

nscous taste. It is a drastic purgative & emetic & a very powerful antihel-
mintic, but its use requires caution. In substance it may be given to the extent
half a drachm & in infusion to three drachms. Ibid

Class 20. Order 16.

Liquidambar. L. Styraciflua. Eng. Sweet Gum.

Gen. Desc. Staminate flowers. ament conic, surrounded with a four leaved involucre
filaments numerous. Pistillate flowers. ament globose, surrounded with a 4 leaved
involucre: calyx 4 leaved, pitcher form, 2 flowered: styles 2: capsules 2, surrounded at
the base by the calyx, called many seeded.

Use. This is useful in diarrhoea. The Indians are said to chew the root to stop
hemorrhages of recent wounds. Ibid.

Class 10. Order 1. Nat. Ord. Lomentacea.

Podalyria. P. Tinctoria. Sophora Tinctora. Eng. Wild Indigo. Indigo Weed.

Gen. Desc. Calyx 5 cleft, somewhat 2 lipped: corol papilionaceous, wings of the
length of the banner: legume inflated, smooth, many seeded (tinctoria) stipules obsolete
leaves wedge form. Perenn. yellow.

Obs. This vegetable is indigenous, & supposed to be exclusively American. In Dr.
Mitchill's catalogue it is called indigo fera. & it is sometimes known by the name of
broom. But more commonly indigo weed. It is perennial growing in great abun-
dance in almost every barren pasture & in woods. The stalk rises to two feet or
more sending off numerous branches. The leaves are small, ternate, inversely heart
shaped & serrate. In July & August all its branches display butterfly shaped,
golden coloured blossoms, which render the plant very conspicuous. The seed vessel bar
inflated containing numerous seeds. The root is ligneous, rough & irregular in shape
of a dark brown colour externally, & sending off many long slender branches. Its
taste is unpleasant, subacrid & nauseous, very similar to that of ipecacuan. The
particular medical properties of indigo weed are yet to be ascertained. That it possesses great
activity is unquestionably true. Those who in the spring season have made the young shoots
substitute for asparagus experienced its drastic evacuating powers. In the hands some
physicians it is found to operate in a large dose with much violence as an emetic & cathar-

thartic. But a weak decoction of the bark of the root has, it is said, been made known by an empiric experienced in its use, as a remedy in Scarlatina anginosa. & its employment has been extended in a few instances to typhus or putrid fever with such good effects as to encourage farther trials. An experienced physician considers it as an excellent antiseptic & febrifuge, preferring it in some fevers to Peruvian bark. As an external application, its antiseptic qualities ought to be more extensively known. In the form of fomentation or cataplasm, it has proved eminently beneficial when applied to phagadenic & gangrenous ulcers, especially if the decoction be administered internally at the same time.

A liniment prepared by simmering the cortical part of the root in cream has been found an efficacious application to sore nipples & ulcerated breasts. A violet or pale blue colour has been prepared from the leaves & small branches of this plant, & used as a substitute for indigo. The leaves turn black when bruised. Thacher, See my Mi. Bot. vol. 1. page 109.

Class 14. Order 2.

Orobanche. O. Virginiana. Ang. Cancer root, Buckthorn, ~~Broomrape~~

Gen. Dec. Calyx of 2 lobed bracteal scales: corolla ringent: capsule 2 celled, 2 valved, many seeded placents under the base of the germ. Virginiana, stem branched, pl. up. Use! The following is a letter from Dr. George Bensell, of Germantown Penn. to Dr. Barton: "In the year 1798 a friend of mine who had found the benefit of this root (in Kentucky) in the cure of an old & painful ulcer of the leg, gave me a small quantity of the powder. I applied it to a confirmed cancer situated in the face, which it completely cured. — Having found in my neighbourhood, the same plant, which attaches to itself the oema-kabe peculiarity of growing under one tree of the forest but the water beech, I have upon various occasions used the powdered root of it in foul & cancerous ulcers, frequently with success & generally to the great relief of the patient. — It is difficult to say in what manner this vegetable exerts its influence, indeed by certain qualities it possesses of neutralizing the cancer-

in; for in no instance have I found it to cure. In the smallest degree
harm. The powder should be mixed with a portion of gum arabic, thickened
in consistence of ointment, & laid on thin leather, which may be left upon the
ulcer as long as any adhesive quality remains. This in proportion to the dis-
charge will sometimes last two or three days.

Lemon juice, the Buck Hoop are a powerful astringent, & cancers have been
effectually cured by the application of the fresh bruised root frequently ap-
plied. It is very beneficial in the cure of St. Anthony's fire, & the can-
ker in the throat — Preparation. In four quarts of water put
eight ounces of Buck Hoops: boil it down to two quarts, strain the decoc-
tion, & sweeten it with loaf sugar. After proper evacuations, purga-
tives, & sweeten it with loaf sugar. After proper evacuations, purga-
tives, & sweeten it with loaf sugar. After proper evacuations, purga-
tives

the long since, in saving the life of a sailor who was taken with a violent pain in his penis, & made bloody water continually. After proper evacuations, my prescription was to take a teaspoonful of the powder of this root, four times a day. Two or three days afterwards, I had the happiness of finding him entirely well. — <u>Preparation</u>. In all immoderate flow of the catamenia, spitting, or discharge of blood, the patient may take one teaspoonful three times a day, in a teacup full of the tea made of yarrow or St. Johnswort, after bleeding & using cooling laxatives. This is always effectual. —

For the benefit of gentlemen of the college, & the medical society, as well as private individuals, I will insert the following new discovery, which obviates the gangrene, & quickly cures carbuncles.

A case. I was called to visit a French lady living in Roosevelt street New York, who had a carbuncle on her arm as large as a crown piece: It was of a fiery red colour, & sharp watery ichor or watery running. I made a poultice of equal parts of bith & blood root, powdered fine & mixed with honey, & bound it over the carbuncle, with directions for renewing it every two hours, & taking a purge. When I called the next day, I found to my great satisfaction that the carbuncle was killed, & only a brown mark left, & has never returned.

This poultice is also a certain cure for old putrid ulcers, obviates the gangrene or mortification, & will prevent the cutting off many limbs in our hospitals, & on board ships of war. Henry.

Class 13. Order 1.

<u>Chelidonium</u>. <u>C. Majus</u>. Eng. Celandine.

<u>Gen. Desc.</u> Calyx 2 leaved: corol 4 petalled: siliqua like capsule, called linear: seeds erected many (majus) leaves pinnate lobed, umbels axillary. Perem. fl. yellow.

<u>Obs.</u> This plant rises two feet in height with many tender round green stalks, with large joints than is common in other plants; very brittle & easy to break; leaves large serrated, & green under: the flower consisting of four leaves are yellow

which some some Gods with Blackish red Berries. The root is long at the
head shooting forth many long roots with small fibres, red within
low within, & full of yellow sap. — This plant grows wild along the sides of mead-
& by running Brooks. — It is acrid, stimulant, aperient, diuretic & purgative.
juice rubbed on warts extirpates them, cures ring worms & cures old ulcers. It has
found useful in dropsy, cachexy, & green sickness. A poultice made of this plant
ed in milk has cured the hydrophobia. Infusions of the plant in vinegar
mote perspiration. — In order to take a film off the eye, take half an ounce
the expressed juice of the leaves, & one gill of the fresh juice of the leaves of ground
y called alehoof, dissolve a teaspoonful of salt in it, & keep it in sand in a
lass for use. The film must be wet with a small hair brush dipped in this juice
ven times a day, & afterwards wash the eye with a little milk & water. To cure
above complaint the patient may take twenty or thirty drops every morning
evening of the expressed juice of this plant in a gill of new milk twice a day
creasing the dose occasionally. Twenty drops of the juice mixed in an ounce of
se water makes an excellent eye water which will cure the most inveterate
ore eyes, by wetting them morning & evening. A poultice made of the roasted
ots mashed in vinegar, & applied to scrofulous tumours on the neck, quick
dispersses them. An ointment made of the roots boiled in hog lard cures the
iles, by anointing them with it every night before the fire, & taking daily
teaspoonful of cream of tartar & flowers of sulphur in honey. Boiled —
Professor Wendt recommends the chelidonium majus as a substitute for mercury in the venereal
ease. He says in summer I generally give the juice of the radix & herba recens expressa with
g & diluted with water, first in the dose of a teaspoon, gradually increasing it to a tablespoon
which dose I order to be continued till the cure is completed. In autumn & spring I employ the
ecus expressus radicis chelidonium, & in winter the extract which is made of the whole plant. Be-
most persons dislike taking expressed juices I generally give the following pills. ℞ Succ. recent. co
is lb ij & rad chelid. maj. ℞ 33. inspissentur calore, gradatim adcondensent. mellis, deinde addantur ra
lid. maj. q. v. satis ad consistentiam massa pillularis: ex qua formentur pil. pond. gr 2. conficiat
lb. Secundum Pharm. usum. — Of these pills I order two to be taken in the morning & evening, da
creasing the dose by one pill till I have raised the dose to ten pills which I continue till
cure is completed. I have often employed the herb & root each separately, & the latter appears to
rt efficacious. If it be intended to prove the cure I prescribe the pills to be taken every three hours

Commiphora madagascarensis
Sibthorpia Europea

Class Monoecia. Order Monadelphia.

Siphonia. S. Cachuca. Ad. Elastic Gum resin tree.

The remarkable substance known by the name of elastic resin or caoutchouc is imported in great quantities from South America in various forms, generally in the shape of bottles, & is employed in Europe for several medical & chirurgical purposes for making catheters, ropes, syringes &c. & also for rubbing out black pencil marks. It was long known to be a vegetable production, & the inspissated juice of a tree, but it was a long time before it was botanically described. Linnaeus thought the elastic gum to be prepared from a tree to which he gave the name of cecropia peltata, & he firmly believed that this was the only tree from which the substance was obtained. It has however since been ascertained by the modern botanists, that there are several trees which yield elastic resin, but especially that the caoutchouc which is imported into Europe is never taken from cecropia peltata, but from a far different plant. It appears moreover from the researches of modern chemists, that this substance is likewise contained in several European plants, namely in the berries of the viscum album, though it is never to be met with, in any European plant in so pure a state as it is observed in several trees in hot climates. The younger Linnaeus takes the Jatropha elastica to be the true elastic resin tree which he learned from Ahlbis work, who knew this tree only with fruit: & Linnaeus concluded from the form of the latter, that the elastic gum tree which Ahlbit calls hevea guianensis, belongs to the genus Jatropha. Prof. Richard however discovered the same tree during his travels in Guiana, in flower, & at the same time in fruit, & from his accurate examination of both it appeared to make a new genus which is now called Siphonia. Mr. Richard found but one species which bears the systematic name of Siphonia cachuca, of which a branch is represented in fig. 1. on a smaller scale from a branch in our collection. Siphonia cachuca (siphonia elastica. Woodville medical botany. tom. 4) belongs to the Linnean class Monoecia, Monadelphia. It is a large tree growing to the height of sixty feet & more; the bark of the branches is smooth & grey brown. Leaves on long footstalks, & very close together. Leaflets half a foot long, elliptical, pointed, entire, coriaceous, on the upper side smooth, & on the under side whitish, with very short, fine close hairs. From the axilla of the leaves arises a panicle of small white flowers

longer than the leaves. Male flowers have a monopetalous, campanulate calyx with five ovate anthers. Female flowers cleft in teeth which are recurved & deciduous; germen roundish & a little conoid, style none, stigmata three, emarginate, depressed, capsule woody, three parted, three celled, in each cell one seed of the size of a sweet almond, elliptical, spotted, & covered with a thin & brittle epidermis. The seeds are said to be eagerly sought for by the Americans, & to be a very palatable food. The manner of obtaining elastic resin from this tree is by making incisions in the trunk of the tree, from which a milky juice issues which is received into earthen vessels. On exposure to the air this juice gradually inspissates into the known elastic resin. In America it is employed for different purposes, & they make of it bottles, boots, flambeaux, &c.

Class Dioecia

Commiphora Madagascarensis — Besides the above tree, which is now pretty well ascertained another has been discovered in the Island of Madagascar, yielding a substance which perfectly ~~resembles~~ resembles that of the Siphonia, & said to be obtained by similar proceedings; & it is to be expected that several other Lactescent trees may produce such a substance. This tree is called by Mr. Jacquin, Commiphora Madagascarensis. On table 2. (a) a branch with flowers is represented in natural magnitude; & in (b) a branch lessened by half. It belongs to the class of Dioecia, & the male flowers are only as yet known. Mr. Jacquin gives of it the following description. "The branches are round covered with a yellowish bark which adheres loosely, leaves oblong obtuse, finely serrated, having at their base two small foliaceous appendages. Flowers yellowish, small, appearing before the eruption of the leaves; they are deciduous. Calyx bell shaped, cleft into four short teeth. Corolla consisting of four lanceolate petals which surround eight subulifform filaments, four of which are shorter than the rest. Anthers erect & oblong. Pistillum & fruit unknown. Wildenow Med & Phys Jour. vol. 11. P. 385 & 398.

Class. Order.

Solanum. L. Asphodelum. L. Allium. Nat. Pointed Chives - Goose Grass

Gen: Char. Calyx 5 cleft. corol flat: fruit dry: red & roundish. leaves stellate, perfoliate

Sp: in rows. stem decumbent. green. white -

Des. This plant grows from four to six feet in height, climbing round the bushes near it:

the leaves are eight in a whorl. lanceolate. & the upper side is white with sharp prickles.

the square, the angles being guarded with sharp hooked bent down: flower small, in-

spicuous. & divided into four segments. there change into a fruit rather large, composed

two berries, slightly adhering together, & covered with hooked prickles containing two red-

It grows in hedges on low ground, beside meadows, near brooks, & is known by people

the country, by the name of poor robins plantain, from its efficacy in curing the gravel

I have found it an excellent & speedy medicine in all suppressions of the urine &

worthy complaints. & it is a powerful diuretic. it has also been found beneficial

the cure of scurvy, hemorrhagia of the nose, & spitting of blood. A tea made of

the infusion of an handful of the leaves has cured the epilepsy & the gout.

In order to remove tumours in the breast, mix the expressed juice of this plant

the oatmeal to the consistence of a poultice, & apply it cold over the tumour three times

day. keeping the bowels open in the mean time by castor oil. & taking a table-

spoonful of the juice every morning. By this treatment very violent tumours have

been dispersed in a few days. In suppression of urine & the gravel let the patient

follow this prescription: after taking a dose of castor oil or oil of sweet, put two

handful of the dry leaves of the plant into three quarts of rain water, & boil it down

two. strain the decoction & sweeten it with honey: let the patient take a tea-

full warm every hour until relieved. A particular case. I was called to see an el-

ly lady labouring under violent pain & suppression of urine. After necessary evacuations

work a day. handful of the leaves of the goose grass, which was gathered fresh from the

meadow & poured three pints of boiling water on them. & ordered a teacupful, sweetened with

every half hour until I returned from visiting a patient nearly. In about three hours time

returning, her husband came to meet me, & with the greatest satisfaction declared that her life had

been saved by drinking the tea. Henry

Class 18th Order 2.

Tussilago. T. farfara. Eng. Colts foot.

Gen. Des. Calyx simple, scales equal, & equalling the disk, membranaceous: receptacle naked: pistillate florets ligulate or without teeth: seeds simple, sessile (sometimes polygamous) (farfara) scape, flowered scaly at length come out, radical, heart angular leaves. (round L. W. W.) p. 4.

Use This plant rises about eight inches in height. The scape is covered with small pointed purple leaves like scales: leaves very large, serrated, irregular toothed, of a bright green colour on the upper, & downy & white on the under side, standing upon large, long radical footstalks; large yellow flowers. Those in the rays of the sun are very visible. It grows on high moist clay ground, the roots are pleasant to the smell & aromatic. The yellow flowers generally appear before the leaves in spring. (filium antepatrum) that is the son before the father; because the flowers appear before the leaves.

The juice or decoction of the dried leaves has been found efficacious in the asphthalmia. The leaves powdered fine & a small pinch taken at bed time, removes giddiness & all obstructions of the head, nose, megrims &c. It is a good medicine in coughs, asthmatic complaints, pain in the breast. It promotes expectoration. Put one pound of the dried roots & leaves of colts foot in six quarts of rain water, boil it away to three quarts, strain the decoction & use it as follows: for kings evil take half a pint three times a day, & roast fresh lily root in wet brown paper under the hot ashes: mash the root & apply it warm every night over the lumps or tumours on the neck, which will either disperse, or bring them to a suppuration in a week. Continue the use of the decoction daily until cured. For cure of the hooping cough, the child may take half a teacup of tea sweetened with honey four times a day, made by putting one ounce of the dry roots & leaves into a tea pot, & pour a quart of boiling water on them. For consumptive coughs the patient may take a gill of the above decoction four times a day. Ibid. — Pen. Ency. N. H. vol. 1. p. 122.

Class 13. Order 1.

Cistus. C. Canadensis. Eng. Canadian Cistus. Rock rose.

Gen. Des. Calyx five leaved 2 of them smaller, corol 5 petalled: capsule 3 valved: open at the top. (Canadensis) stamens hypogynous on the petals, leaves alternate, Canada. Seven. yellow. Late in autumn this plant sends up curved icicle crystals from near the root of a very singular structure. We should like to know what that structure is. Rafinesq.

This plant rises two feet in height: leaves numerous, ovate, very small, of a whitish colour like frost, & grow on small simple stalks: flowers of a pale col- & inconspicuous, which terminate in a small pod containing very small seed. is new discovered plant grows in the woods on Long Island, & plentifully in New Jer- & is known by the name of frostwort, from its colour.

It has been found effectual in the cure of cachexia, or kings evil.

ke one handful of the dry leaves, a quart of rum, & a table spoonful of black hes. put this in an earthen pipkin, & let it stand on the hot embers for two ers to simmer: strain it & put in a handful or two more of the dry leaves into Liquor, & let it simmer for half an hour. then thicken it by stirring in two ounces of the powdered leaves, & apply a poultice over the lumps twice a day. Let the tient drink the following infusion three times a day: put four ounces of the dry to a tea-pot filled with boiling water, & wash the sores three times a day th a rag dipped in the tea. Numbers have been cured in this city of New York the above prescription. Ibid.

Class 17. Order 8.

umaria. F. Officinalis. Nat. Fumatory.

en. Desc. Calyx 2 leaved, cadducous: corol irregular, spurred at the base: filaments each with 3 anthers: capsule dorsal like, 1 celled, 1 seeded, not opening by valves, seed af- ed to the side of the cell (officinalis) leaves more than decompound, with leaflets edge lanceolate pointed. stem with spreading branches. annual. fl. red- re. This plant rises a foot in height: leaves pale green, compound, doubly pinnate e smaller pinnae three lobed. flowers of a reddish purple & grow in spikes which ise from the axilla of the leaves. the corolla has the appearance & is in reality irregu- ent. This plant grows common in corn fields & along the fences. Flowers in June & July

It is a tonic bitter, & antiscorbutic, & has been found efficacious in the cure of lepra other cutaneous eruptions. The virtues are chiefly contained in the dry plant.

Pour two quarts of boiling water on two ounces of the dry leaves of fumatory: in ll foulness & scaly eruptions let the patient take a pill three or four times day & wash the parts with a tea twice a day. As a tonic or stomachic one

cine. infuse two ounces of the dry flowers & tops of the plant in three pints of Madeira wine, rum, or brandy: a wine glass full of the wine infusion may be taken twice a day on an empty stomach, & a table spoonful of the brandy with a spoonful of spring water, which will strengthen the stomach & create a good appetite.

Class 18. Order 2. Nat. Ord. Asteraceae

Solidago. S. Ciliaris. S. Virga Aurea. Eng. Goldenrod.

Gen. Char. Calyx scales imbricate, closed: egret simple: receptacle naked; furrowed with dots or punctures. ray florets about five.

Use. This plant is perennial, & rises about two feet in height: small brown round stalks, divided at the top into small branches, with many long green leaves: flowers small & yellow on every one of the branches, all of which are turned one way, & when ripe they become as down & are carried away by the wind.

It grows in woods, meadows, & along the fences in every part of the United States & produces its flowers in July.

The flowers are aperient, corroborant, & the leaves are gently astringent. The flowers have been found beneficial in removing obstructions of the urinary organs in gravelly complaints, ulcerations of the bladder, are good in cachexies & in the first stage of dropsies. The leaves are good in debility & laxity of the viscera or bowels, & all disorders proceeding from that cause.

Pour two quarts of boiling rain water on two handfuls of the flowers, put them in an earthen vessel covered, & set it on hot ashes for an hour: strain the infusion through a clean linen cloth & sweeten the liquor with loaf sugar. Let the patient labouring under obstructions of urine, & gravelly complaints take a tea cupfull of this infusion three or four times a day till he finds relief. In all complaints of the bowels as well as fever, observe the following prescription: Pour a quart of boiling water on a handful of the dry leaves & flowers of the goldenrod & let the vessel stand near the fire covered for an hour close a tea cupfull taken every two hours through the day, sweetened with sugar, in complaints of the bowels. In fevers after proper evacuations, the patient may take a cupfull every hour, sweetened with sugar, together with a teaspoonful of lemon juice, if there is no cover

Spirit

Class Cryptogamia. Order 1.

Lycopodium. L. Obscurum. Eng. Ground Pine.

Gen. Desc. Capsules mostly kidney form or roundish, 2 or 4 valved opening elastically. They are placed under separate scales in a spike or sometimes in the axils of the leaves. Very hairy their stems being generally covered with 2, 3, or 4 rows of narrow entire leaves (obscurum) leaves scattered 6 rowed. shoots erect. branches irregularly forked. spikes nearly sessile cylindric. solitary, terminal.

Use. This small & useful plant grows plentifully in low woodland, in rocky places on the sides of mountains, & near running brooks.

The leaves are aperient, corroborant, nervine, attenuant, diuretic, & emmenagogue. They are beneficial in gout, rheumatism, suppression of urine & urinary obstructions.

Take half a pound of the bruised leaves & flowers of the ground pine & two quarts of Madeira wine upon them, shake the vessel often & let it remain for one week, when it will be fit for use. A wine glass of this infusion may be taken three times a day on an empty stomach, in any of the above complaints. It has also removed rheumatic pains, after necessary evacuations. Ibid.

Class 2. Order 2.

Schoenocaulon. C. Canadensis. Eng. Stone weed. Horse balm. Stone root.

Gen. Desc. Calyx tubular, 2 lipped: corol unequal, underlip many cleft. capsule many, perfect seed (canadensis) leaves heart ovate, green. yellow. Root knotted flat & as hard as a stone. hence it derives the name of stone weed or root. It grows on the sides of hills & on the borders of high meadows. both in New Jersey & West Florida (& in Deerfield Mass.)

Use. This root is carminative, diuretic, corroborant, aromatic, & has cured the dropsy. Dig up the root in the spring, & cut it into thin slices, dry it sufficiently in a baker's oven or a slow fire, stir it constantly, & when dry pulverize it, & put it into vials for use. — Boil two ounces of the powder in two quarts of rain water, strain the decoction & in dropsical swellings the patient after taking a glass of it once

incacuanha may take a teacupfull of the decoction six times a day increasing the dose according as they may find benefit, & likewise they may take a spoonful of the powder four or five times a day until they find their strength restored. In all debilities & flatulent complaints of the bowels, a teaspoonful may be taken in a spoonful of brandy & water, three times a day on an empty stomack. In the cure of fevers after necessary evacuations, the patient may take for his constant drink, when the fever is on, half a pint of the infusion of the dry tops of the weed, made by taking a handful of the dry tops of the weed & pouring a quart of boiling water on them. Ibid.

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Class 5. Order 2.

Apocynum. A. Cannabinum Amp. Indian Hemp.

Gen. Desc. Corol. bell form: stamens alternating with 5 filamentous pointed nectaries. Stigma bread. almost sessile: follicles long. linear. (cannabinum) panicled. corol erect. green. yellow. green. — This useful plant rises three feet in height, the stalk is bare for a foot, then spring many branches: leaves numerous & ovate, hanging on footstalks: flower whitish. similar to buckwheat, which terminate in seed pods resembling a cucumber. The stalks & roots are lactescent —

It grows in meadows & in low wood on the borders of meadows on Long Island, & in New Jersey, as well as in other parts of the United States, & is sometimes vulgarly called wild buckwheat.

Use. It is emetic, cathartic, sudorific, diuretic, & is an excellent pectoral. I have found it beneficial in curing rheumatisms, dropsies & asthmatic coughs. —

Dig the root in April, & hammer it on a stone until you can take off the bark, which you must dry & pulverize: dose from thirty to thirty five grains, which will generally work the patient both up & down which may be used as an emetic in intermittent fevers. As a sudorific six grains may be taken three a day in a spoonful of cold water. As a pectoral take one ounce of the fine powder, & an ounce of the powder of skunk cabbage both, mix it with tar, & make it in a mass for pills. Of the size of a large pea, which I have found of great be

in Asthmas: dose, take two pills every night & morning for a week, after which take three twice a day & drink a tea cup of the infusion of skunk cabbage root, three times a day. I have found it effectual in curing rheumatism & immoderate flow of the menses, by taking every night half a teaspoonful of the powder of Indian hemp, in a tea cup of prickly ash tea: & as a pectoral six grains may be taken night & morning. A spoonful of the infusion taken occasionally is good in the hooping cough, & prevents straining & the raking of blood which I have observed among children labouring under that complaint, & should recommend changing from the city to the country, children afflicted with this dangerous complaint. Ibid.

Class Cryptogamia. Order 1.

Adiantum. A. Pedatum. Asp. Maidenhair.

Gen. Char. Capsules disposed in oblong spots arranged along the margin of the frond. Involucre is formed by turning back the margin of the frond over the capsules, & it opens inward (the lines of oblong spots are generally along that margin which may be considered the end of the leaf) (pedatum) frond pedate, branches pinnate, leaflets halved.

This plant rises to seven or eight inches in height: leaves very fine & soft, on short footstalks, diversely cut on the edges, thickest on the upper part, & spotted finely underneath: stalks of a dark purple colour. It grows in swamps & low grounds, & on the sides of stony mountains.

Use. Maidenhair is expectorant, mucilaginous, & not astringent. It has been found beneficial in tickling coughs, hoarseness from acrid effusions, in obstruction of the viscera, obstinate coughs, pleurisy, asthma, jaundice, promotes the menses & fluid secretions, & strengthens the tone of the fibres.

Pour three quarts of boiling water on a pound of the dry herb, & two ounces of liquorice root bruised. a tea cup of this infusion may be taken every hour in a tickling cough. As a pectoral boil two pounds of the dry herb & four ounces of sliced liquorice root, in eight quarts of rain water, & the consumption of one gallon: strain the decoction & put three quarts of molasses, or six pounds of sugar to the strained liquor. then boil it away to the consistence of honey, a table

spoonful or two may be taken every hour, & is an excellent remedy in coughs & asthmas. Boil three pounds of the herbs & root of maiden hair, in two gallons of rain water down to four quarts; strain it, & take a tea cup full or half a pint, four times a day in order to promote the menses, & cure the jaundice. I cured a man of the jaundice in West-Florida, by this decoction some years ago. Ibid.

Class 2. Order. 2.

Monarda. M. Allophylla. Ang. Rose Balm. Mountain Mint.

Gen. Dec. Calyx cylindric, striated, 5-toothed: corol ringent, upper lip linear, involving the filaments. (allophylla) leaves acute serrati. peren. blow.

This beautiful plant rises two feet in height; leaves heart shaped with a sharp point serrated, in pairs opposite each other on tender reddish stalks. flowers of a purplish red, which appear in July.

It is indigenous to the United States, & grows plentifully on the borders & banks of low meadows in New Jersey. Long Island &c.

Use. This plant is an excellent febrifuge, antiseptic, diuretic & sudorific, & is beneficial in all inflammatory fevers, pleurisies, piles, & ardour of urine.

On one handful of the dry tops & flowers pour a quart of boiling rain water, cover the vessel & set it on hot ashes for an hour. After all necessary evacuations in fevers, pleurisies &c. the patient may take a tea cup full of this tea every hour with a little lime juice in it, & sweetened with lump sugar, & in order to raise the perspiration, the patient may bathe his feet in warm water for fifteen minutes, & dry the feet with a cloth. Let him drink a tea cup full warm in bed every half hour, with ten or twelve drops of spirits hartshorn in each tea cup full of tea, until it has caused a plentiful diaphoresis. He must avoid the cold after this for fear of a relapse. The rose balm is more aromatic, & more effectual in fevers, than the garden balm, or melissa officinalis, of the shops. Ibid.

Class 7. Order 1

Rumex. R. Acetosella Ang. Sheep Sorrel.

Gen. Dec. Calyx 3 leaved: petals 3. converging; stigma many cleft. seed 1. naked three sided (acetosella) leaves hastate, perennial.

ries one or two feet in height; leaves are radical, & arrow shaped, of a big
n colour, & stand upon long foot-stalks; flowers produced upon terminal spikes,
ed. of a reddish colour. The seeds of are single & of a triangular shape.
t grows in old pastures, & in corn fields &c. throughout the United States.
e. The infusion of the leaves are refrigerant useful in all inflammatory habits
well as in the scurvy.

With the leaves of sheep's sorrel I cured a large soft wen, which a man had on
scrotum for twenty years, which hung down as big as the egg of a goose.
Being called by one William Comfort, in Orange county to examine his case
walked with him in the field, & found it to be a soft wen without arteries &c.
ordered him to pull up a few bunches of the sheep sorrel, growing in his corn field, & to
wash them in wet brown paper, & roast them under the ashes, when done to mash
them into the consistence of a poultice, & to sift a spoonful or two of ashes into the pow
& apply it over the wen warm every two hours. In a few days he called upon me
finding by applying my finger, that there was pus or matter formed, I opened it
with a lancet & after evacuating the matter I forced out a coagulum resembling
ed. I then ordered him to apply an emollient poultice &c. & in two weeks it was
ed. Ibid. See page 124

Class 5. Order 5.

Aralia. A. Racemosa. Am. Spikenard.

Gen. Desc. Umbellets imbricated: perianth 5. toothed, superior: petals 5: berry crowned
celled: cells seeded. Leaves ternate. (racemosa) stem branching. perm. fl. white
This plant grows to three or four feet in height; leaves are many, small ovate, on
y branches, from a thick purplish stalk; flowers inconspicuous very small, of a
nish colour, producing berries much resembling elder berries, of a sweetish pleasant, a
matic taste. This large grows in low rich grounds & among rocks. The roots run
nder ground very long, about the thickness of your finger, & have a very fragrant
well & pleasant taste.

Use. This plant is much used by the Indians. The roots have been found effectual
gouty complaints. The berries are balsamic, cordial, & anodyne, & when infused in
ined in an equal quantity of brandy & water, make an excellent cordial, very pa
table, anodyne, & highly beneficial to persons afflicted with the gout. This med-

 medicine has cured a man afflicted with the gout in his stomach, when other medicines had been tried to no purpose.

Pour a pint of brandy on a pint of the fresh berries, & let it stand for a week near the fire; then pour a pint of rain water on them. Keep this medicine by you as a speedy cure for gout in the stomach. Dose a wine glass of this cordial twice a day. This is a disorder which has proved mortal to my neighbor who went to his bed seemingly well, but was suddenly seized with the gout in his stomach, which carried him off in a few minutes: but had he taken a glass of this cordial I make no doubt, but his life might have been prolonged.

For wounds a poultice of the fresh root will cure without any other medicine, & is good for ulcers in the leg &c. Ibid.

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Class 10. Order 1

Pyrola. P. Rotundifolia. Eng. Round leaved Wintergreen. Shin leaf.

Gen. Des. Calyx 5 parted: anthers with two pores: capsule 5 celled, dehiscent at the angles rotundifolia) racemes many flowered leaves round. perm. w. — This plant rises about three or four inches high: leaves numerous on small reddish stalks, heart shaped, thick; remains green all winter, produces small red berries, of a delicious aromatic sweet taste. flower small, of a pale purple colour. This small plant grows in abundance in pine woods where the land is good. In some places in New Jersey the woods are full of it, & the ground is green all winter, from whence it derives its name.

Use. It is refrigerating, desiccative, diuretic, astringent, consolidating, & vulnerary, both internally & externally. — In fevers, suppression of urine, cough & debility the following infusion is excellent: pour two quarts of boiling rain water on two handfuls of the leaves & roots of wintergreen, & let it simmer on hot ashes for two hours: a tea cup full of this infusion may be taken four or five times a day in fevers, suppression of urine & the gravel. For weakly consumptive habits, pound the fresh leaves in a mortar until you can express the juice, which must be put in a jipkin & kept over a fire until it boils. after it is cool decant the clear juice from the sediment, & to every pint of this clarified juice, add half a pint of Madeira wine or old Holland gin, as the patient likes. Dose, a wine glass full may be taken every morning, before dinner, & at lying down; the dose

increased as they find benefit. — There is a most delicious essential oil obtained from this herb, which answers every intention of the herb itself in its fresh state: dose from four to ten drops on sugar three a day. The essence of wintergreen is made by pouring one ounce of the essential oil to a pint of alkohol, rectified & shaking the mixture. Dose of the essence from forty to sixty drops in any kind of tea. Ibid

Class 5. Order 5.

Aralia. A. Nudicaulis. Eng. Sarsaparilla.

Gen. Desc. For this see page 125.

Use. The roots are used as a substitute for foreign sarsaparilla. A decoction is used in the country for that eruptive complaint called the shingles. It is also esteemed a remedy to restore the tone of the stomach. Dom. Enc.

Class 18. Order 1.

Cynara. C. Scolymus. Eng. Garden Artichoke.

Gen. Desc. Receptacle bristly; calyx dilated, imbricate; scales with fleshy base, marginate, pointed: corollas hermaphrodite. sessile (scolymus) leaves prickly or unarmed, pinnate & undivided; calyx scales ovate.

This plant though an exotic plant well known. There are four species, but only two are reared for use viz. the scolymus or garden artichoke, & the cardunculus or cardoon both of which are propagated by slips or suckers, arising in spring from the roots of the old plant. The slips should be taken from good plants in March, or the beginning of April, & set in an open quarter of the kitchen garden, in rows at the distance of five feet from each other. By this process artichokes may be produced in the autumn of the same year. The size of this fruit will gradually diminish after the third or fourth year, though the roots continue sound for several years. — Artichokes flourish best in a rich & moist soil, but if it be too wet the roots are apt to decay in a severe frost. They have been used with advantage in the making of soda; & the leaves of scolymus, prepared with bismuth imparted to wool

 a fine & permanent gold colour.

Artichokes succeed very well in this state (Pennsylvania) if left exposed in the winter months. When covered with straw in the autumn they rot. The only precaution necessary to take, is to dig a ditch around the plants to prevent the water from injuring them. For this very useful information the editor is indebted to Mr. Legaux, of Spring Mill. His artichokes were eight or nine inches diameter. The seed was imported from Holland. See page 143.

Class 11. Order 3. Nat. Ord. Capparides.

Reseda. R. Odorata. Eng. Mignionette. Bas. Rocket.

Gen. Desc. Calyx 1 leaved. 4 to 6 parted: petals in many divisions: capsule 1 celled, dehiscent at the top: seed uniform: stamens 11 to 15: styles 3, 5 or none (odorata) leaves entire & from lobed. calyx has as petals styles often. green. yellow.

Use. This is an indigenous plant, growing in meadows, pastures, & corn fields, chiefly in a calcareous soil; though it is sometimes found on walls; where its pale yellow flowers appear from July to August. This neglected vegetable may be eaten in the same manner as Kale. & it was formerly reputed to possess anodyne properties. Ibid.

Class 5. Order 1.

Campanula. C. ~~Rotundi~~ Glomerata. C. Perfoliata. Eng. Clasping Bell-flower.

Gen. Desc. Corol. bell form. closed at the bottom by valves bearing the stamens: stigma 3 to 5 cleft: capsule 3 to 5 celled. opening by lateral pores. (perfoliata leaves clasping) annual. fl. blue — It grows on high calcareous lands, & blossoms in July & August. Altho' bees frequently frequent the flowers of this species, yet it should be carefully extirpated from meadows & fields as being a pernicious food for cattle. Ibid.

Class 18. Order 4.

Centaurea. C. Cyanus. Eng. Blue Bottle

Gen Desc. Calyx various. mostly imbricate. roundish: egret simple. various: receptacle bristly: corols of the ray funnel-shaped. longer. irregular (Cyanus) leaves linear entire lower ones toothed. annual. blue. Exotic.

vegetable is considered as a weed. but besides the property of affording a valuable
nt. (A fine blue colour equal to ultramarine may be made by collecting the
e corn bottle flower or Centaurea Cyanus, which abounds in almost every corn field
has two blue tints; the one pale in the large outward leaves, the other deeper
ich lies in the middle of the flower. by rubbing the last while fresh, as as
soon as the juice it will yield a beautiful, unchanging colour. On the same
y that the flower is gathered the middle should be separated from the extreme
s. & when a quantity of the juice is obtained, a small addition of alum will pro-
ce a permanent clear blue, which in the opinion of many persons is not inferior
ultramarine.) it is also much frequented by bees. A decoction of the flowers with
alls & copperas afford a good writing ink; & it may also be employed with suc
h in the dyeing of linen & cotton. Ibid.

Class 3. Order 2.

rinus. B. secalinus. Eng. Broom Grass. Chess

n. Desc. Calyx 2 valved; spikelets oblong, terete, 2 ranked; valves awned below the
(secalinus) awnless. panicle spreading.

re. Flowers in July. Cattle are fond of this grass, the seeds of which are prevalent
rong rye, in a considerable proportion, & when ground with the latter for bread, it
ly renders it blackish, but produces a narcotic or stupifying effect. From its flower
indles as Bechstein informs us a beautiful green dye may be easily extracted
ibid.

Class 8. Order 3.

ygonum. P. fagopyrum. Eng. Buckwheat.

n. Desc. Calyx inferior 5 parted, coloured: corol 0: seeds angular, covered with the calyx
mens & pistils vary in number. the calyx in some species might be taken for a corol.
opyrum) stem smooth. branches erect.

e. Buckwheat is in flower throughout the summer, & would yield much larger crops
all the grains would uniformly ripen, & could be collected at the same time. About
f a bushel is sown on each acre in this country & the Germans calculate sixty pounds
ight to every hundred square rods of land. From seven to eight weeks only are required for bring
it to maturity. & it produces from twelve to twenty fold. In this state it flours

[illegible] for hay: & it is affirmed that the German farmer obtains it at expense than in mowing & drying the whole, in the usual way, in times the quantity of corn. One of the principal uses of buckwheat in this country is that of feeding horses. Mr. Fare advises it to be mixed with bran, chaff or grains either whole or broken in a mill. Hogs feeding upon this vegetable are very liable to scabby eruptions. Buckwheat should be sown thin, because the top blossoms are very apt to burn by the sun, in which case the smaller ones will be saved as they spread out & protect one another from the sun. If sown thick, the plants cannot throw out under branches. The straw of buckwheat is but little esteemed. Sheep however feed on it. It also makes good manure when thrown into the farm yard.

For culinary purposes, also the grain of the buckwheat is used in various forms & affords a nutritious meal, which is not apt to turn sour on the stomach. Buckwheat reduced to flour, mixed with water & a little yeast, will rise in the course of two hours, if placed near a fire; & being then baked upon a hot iron, particularly greased forms very pleasant cakes, which when buttered, constitute part of the diet of many persons in the United States during the winter. By depriving the grain of its husk before grinding, the flour is rendered white & is much esteemed. From the fresh blossoms of these plants, Dambourney dyed wool prepared with bismuth & tin, of a beautiful brown colour. & from the dried flower bundles different shades of green. Those of Siberian species, in particular, yielded a fine yellow, which on boiling the wool still longer in the dye, changed into a golden tint, & at length assumed a brilliant yellow.

See Dom. Enc. page 421 & sequents. See my Mat. Md. vol. 1. page 105.

Class 20. Order 5.

Xanthium. X. Strumarium. Eng. Sea Burdock.

Gen. Desc. Staminate flowers. common calyx imbricate. corol 5-cleft, funnel form receptacle chaffy. Pistillate flowers. involucre 2-leaved, 1 flowered: corol 0: drupe dry, muricate, 2-cleft: nut 2 celled (strumarium) stem marked, leaves cordate, nerved, fruit an oval burr.

Use. This is a native plant growing on dung, & ground highly manured; the thick stem is a foot & a half high, thick, often spotted, the leaves heart-shaped, set on long footstalks, flowers from June to September. The leaves are bitter & astringent. They are eaten by horses & goats, & refused by cows, sheep, & swine. A decoct

— whole plant yields a bright yellow coloring, which however is more lively — the ~~leaf~~ flowers alone are employed. Ibid

Class 20. Order 3.

Liriodendron. L. Tulipiferum. Eng. Bow Wood.

— Desc. Staminate flowers — ament roundish: calyx 3 leaved: corol 0: Pistillate flowers — calyx 3 leaved: corol 0: stigma 2. cleft: drupa pericarp. 1 seed (samarum) — 3 sided at the base, common pedunculate branched. green white.

— This is an indigenous perennial, growing in ditches, marshes, & on the banks — rivers where it flowers in July. This plant though refused by sheep & horses, is greedily eaten by cattle while in a green state, but when dry it produces a hard — Its flowers while in full bloom, have by Bancks been successfully employed in tanning. Ibid.

Class 5. Order 1.

Ceanothus. C. Americanus. Eng. Jersey Tea.

— Desc. Petals bay. like. vaulted, standing in the cup form calyx; berry or capsule dry. 3 grained. (americanus) leaves oval, serrate, downy beneath, woody. fl. white

— This shrub seldom rises more than three or four feet high, sending out branches on every side from the ground upward. The branches are very slender, & are garnished with oval pointed leaves, having three longitudinal veins, running from the footstalk to the point, & diverging ~~from~~ in the broad part of the leaves from each other. The leaves are placed opposite & deciduous, & of a light green colour. At the extremity of each shoot the flowers are produced in close thick spikes, & are composed of five small petals of a clear white. Flowers in June.

During the revolutionary war the leaves of this shrub were dried & used as a substitute for common tea. The plant is said to dye wool a fine strong nankin cinnamon colour. Ibid.

Class 5. Order 1.

Celastrus. C. Scandens. Eng. Climbing staff tree. Waxwork. Bittersweet.

— Desc. Calyx flat: corol spreading: capsule 3 angled, 3 celled, berry like: stigma 3 cleft: seeds calyptred. (scandens) climbing: fruit berry like, red, permanent, opening with 3 valves, wood

Use. Three species are found in the United States. C. bullatus. C. scandens, or climbing staff tree. C. myrtifolius. The second species possesses all the powers of sarsaparilla. Dom. Use. This by the common people is called the bitter sweet. But it is a mistake. The Solanum dulcamara is the bitter sweet. An ointment is made by simmering the bark of the root, or the berries in lard which is efficacious in sprains bruises & wounds of cattle & horses. S. W. W.

Class 12. Order 13.

Potentilla. Ang. Cinquefoil.

Gen. Desc. Calyx 10 cleft, 5 alternate divisions smaller: corol 5 petalled: seed awn. Lep. roundish, rough, fixed to a dry small receptacle.

This is a genus of plants comprising 35 species, of which only eight are indigenous to the United States.

Use. This plant has been usefully employed on the Continent of Europe in tanning calf skins: & it is also eaten by cows, horses, goats, & sheep; but it is refused by hogs. Dom. Use. See my N. H. Vol. 1. page 107.

Class 10. Order 3.

Dianthus. D. Caryophyllus. Ang. Clove Pink - Carnation

Gen. Desc. Calyx inferior, cylindrical, 1 leafed, with 4 to 8 scales at the base; petals with 5 claws: capsule cylindrical, 1 celled, dehiscent at the top: caryophyllus petals crenate-lobed, scales of calyx ovate, acute, perm. Fl. red.

This genus comprehends 28 species, of which six only are natives of England. The carnation in its wild state grows on old walls, & is found among the ruins of ancient castles. It usually flowers in the month of June & July.

All the clove pinks will thrive in almost any garden soil yet they delight most in a light loamy nature. They are propagated chiefly by seed, in March or April. & generally come up in a month after sowing. When properly weeded & watered till July they will be fit for transplanting into nursery beds, which should be about three feet wide, & in an open situation. In these beds the plants are to be pricked during moist weather, at the distance of four inches from each other, & moderately watered; which should be occasionally repeated until they have taken good root. In September they will be fit to be finally

may be planted into other beds of good earth, about three feet wide in rows, and
at nine inches asunder. Here they are to remain till spring; but if the win-
ter prove very severe, they should be sheltered with mats. In the vernal season
they ought to be carefully weeded with a hoe, & the flowerstalks must be tied
up to sticks, in order to prevent their drooping, by which their growth would
be retarded.

Clove pinks have a pleasant aromatic odour, & are said to be car-
diac, & alexipharmic. A decoction of their flowers has been successfully used
in malignant fevers, & as Paulli asserts they raise the animal spirits,
quench thirst, & powerfully promote both perspiration, & the secretion
of urine, without occasioning great irritation. Ibid.

Class Cryptogamia. Order 1.

Complanatum

Lycopodium. L. ~~Clubmoss~~ Eng. Flat Club Moss.

Gen. Desc. See page 121. article Lycopodium.

The common club moss grows in dry mountainous places, heaths & woods. It is frequently found in the North of England, produces a prostrate, creeping stem, from one to three yards in length. Flowers from July to August & bears seed, which, if injured in rainy weather, will, in a few days restore it. When thrown into a fire this seed emit a bright flash & also possess the peculiar property of being almost impervious to moisture, so that if they are scattered on a basin of water the hand may be immersed to the bottom, without being wetted... In the north of Europe they are pulverized & applied externally for curing chaps in the skin & other sores. Beautiful mats, or summer carpets are manufactured of the stalks of this plant in Sweden. Ibid.

Class 10 Order 5.

Agrostemma. A. Githago. Eng. Corn Cockle

Gen. Desc. Calyx 1 leaved, coriaceous: petals 5 with claws bordered, entire: capsule 1-
celled, many seeded. (Githago) bristly. petals entire. annual. fl. red.

Use. It grows in cornfields & bears reddish purple flowers in the month of June or July.
It is very prolific, & produces a great number of pods, each of which contains from seven
to thirty seeds, somewhat resembling those of the turnip; they impart a strong taste to

the bread baked of corn mixed with them: such grain ought therefore to be employed in the distilleries for the manufactory of starch. There is a variety of this species, which produces similar but smaller seed than the former, & exhibits a peculiar mode of vegetation, being found within the wheat ear, one side of which is filled with good grain, & the other with a spurious one, produced by this weed. Hence husbandmen have given it the significant name of ear cockle. It is by no means so common as the former variety, but is generally attributed to bad husbandry, by which the land is exhausted of its nutritious qualities, & weakened to such a degree as to be prevented from bringing the wheat to perfection; because this plant is never found on lands that are well cultivated & properly managed. It is eaten by horses, goats, & sheep. Ibid —

Class 14. Order 2.

Melampyrum. M. Americanum. M. Pratense. Eng. Cow Wheat.

Gen. Disc. Corol with the upper lip compressed, the margin folded back: capsule 2 celled, oblique, dehiscent on one side: seed 2 gibbous. Linnaeus species Americanum. Leaves linear-lanceolate, the upper ones toothed, bristled at the base. Flowers axillary, annual yellow. Lit. Use. It grows in woods & thickets, especially on clayey soils. Its blossoms are of a yellow colour with white tubes, & appear in July & August. Hogs eagerly eat the seed, but reject the plant, which is also refused by horses. It is however eaten by sheep & goats & particularly by cows, which are extremely fond of it. Where this plant abounds the butter is yellow & uncommonly good. Ibid.

Class 23. Order 16.

Pinus. Pinus Balsamea. Eng. Spruce fir.

Class 3. Order. 1

Typha. Eng. Bull-rush.

Gen. Disc. Flowers chaffy, calyx imbricated every way. seed single naked, surrounded with hairs or bristles. In ponds & rivers.

Use. When properly cured it makes very neat bottoms to chairs; but they will be much stronger mixed with the leaves of the cat tail flag. though somewhat coarser.

Cultivated

Class 6. Order 1. Nat. order Lacifi

...porii. H. Erecta. Ang. Yellow Bethlehem Star.

... Desc. Glume like spatha 2 valved: corol superior 6 parted, permanent: capsule con-
...ed, narrow at the base: seed roundish. (erecta) scape 2 to 4 flowered. peren. fl. yellow
...mon in grass land & amongst bushes.

...e. The bulbous roots are nutritious & wholesome. It makes beautiful edgings for
...des in gardens. Ibid. It is vulnerary & febrifuge. The roots are sometimes
...ten. They are used in long standing fevers. & agues.

Class 8. Order 1.

...enothera. Oe. Biennis. Ang. Scabish. or Tree primrose.

...en. Desc. Calyx 4 cleft, tubular, caducous, divisions deflected: petals 4 inserted
... the calyx: stigma 4 cleft: capsule 4 celled, 4 valved: seeds not feathered. Biennis
...ves lance ovate stamens shorter than corol. Large. biennial. yellow. common in
...a fields. This plant is generally known by the name of Scabious & seems to have
...n mistaken for the Scabiosa arvensis of Linneaus. No species of Scabious has been
...ound native in this part of the country. Ibid.

Class Pentagynia.

...alis. O. Stricta. O. Dillenii. O. Fetocella. Ang. Upright wood sorrel. two reform.
...hou bread. In rainy weather the leaves stand upright. but in dry weather
...y hang down. Blossoms yellow. In shady places. fl. May. August.

...e Dr. Withering says, the expressed juice depurated, properly evaporated
...et in a cool place affords a crystalline acid salt in considerable quantity
...hich may be used wherever vegetable acids are wanted. The London colly-
...rium a conserve to be made with the leaves beaten, with three times their weight
... fine sugar. This juice is gratefully acid. An infusion of the leaves is an
...reeable liquor in ardent fevers. Ibid.

Class Polygynia-andric

...osa. R. Canina. Dog. Rose Wild rose.

...Blossoms red. Berry pale red. Common in moist land.

... Blossoms gathered before they expand, & dried are astringent; but when full

132 blown are purple. This species is generally preferred for conserves. A ~~di~~ perfumed water may be distilled from the ~~[illegible]~~ blossoms. The pulp of the berries beat up with sugar, makes the conserve of hips of the London Dispensatory. The dried leaves of every species of rose have been recommended as a substitute for every species of India tea, giving out a fine colour, a substringent taste, & a grateful smell. Ibid.

See my M. M. vol. 1. p. 111.

Class Polygynia.

Rubus R. Strigosus. Aug. Red Raspberry.
Blossoms white. Berry pale red. Common by stone walls. June.
Use. The fruit is sub-acid, cooling & extremely grateful. If it be made into sweet meat with sugar, or fermented with wine the flavour is improved. Dr. Withering says, it dissolves the tartarous concretions of the teeth. But for this purpose it is inferior to the strawberry. Ibid.

Class 13. Order 1. Nat. Ord. Hydro charides.

Sarracenia. S. Purpurea. Aug. Side saddle flower. Sarracene. Hollow leaved plant.
Gen. Des. Calyx double, 3 & 5 leaved: corol 5 petalled: stigma peltate, covering the stamens: capsule 5 celled. (purpurea) leaves cup form with bordered mouth, radical, perennial, purple. — The leaves are tubular, somewhat resembling the horn of an ox inverted. The aperture at the top is horizontal & circular, with a broad, patent, foliaceous appendage, extending two third of the way round it. A similar appendage runs down the concave side to the root. The cavities of the leaves are large & generally contain a quantity of water. They seem to be designed by nature for reservoirs, from which the plants may constantly be supplied with moisture. The stems are erect & naked. Blossoms single, terminating & reclining: petals red: the stigma which covers the disc reddish green. In moist land, especially in fens & quagmires. May, June. Ibid.

How greatly the flowers of the yellow Sarracenia represent a silken canopy. The yellow pendent petals are the curtains, & the hollow leaves are not unlike a cornucopia or Amalthea's horn; what a quantity of water a leaf is capable of containing, about a pint! taste of it — how cool & animating — limited as the ox

dew: nature seems to have furnished them with this cordated appendage 27
, which turns over, to prevent a too sudden & copious supply of water, from heavy
ers of rain, which would bend down the leaves never to rise again; because their stran
rabul nerves, which extend & support them, are so rigid & fragile, the leaf would
vitably break when bent down to a right angle; therefore I suppose the water
ich contribute to their supply, are the rebounding drops or horizontal streams
ffed by the winds, which adventitiously find their way into them, when a
t of wind shifts the lid: see then that stiff hair they all point downwards,
ich direct the condensed vapours down into the funiculum; these stiff hairs also
vent the varities of insects, which are caught from returning, being invited
n to sip the mellifluous exudation, from the interior surface of the tube,
ere they inevitably perish; what quantities there are of them! These latent
aters undoubtedly contribute to the support & refreshment of the plant; for
ps designed as a reservoir in case of long continued droughts, or other casualties
ere these plants naturally dwell in low savannahs liable to overflows from
ain water. For altho' I am not of the opinion that vegetables receive their nou
hment only through the ascending part of the plant, as the stem, branches,
aves, &c.; & that their descending parts, as the root & fibres, only serve to hold
ertain them in their places; yet I believe they imbibe rain & dews through
heir leaves, stems, & branches, by extremely minute pores, which open on both
e faces of their leaves, & on the branches, which may communicate to little
milliary ducts or vessels; or, perhaps the cool dews & showers, by constricting
hese pores, & thereby preventing a too free perspiration, may recover & again
vigorate the languid nerves of those which seem to suffer for want of wa
, in great heats & droughts; but whether the insects caught in their leaves
which dissolve & mix with the fluid, serve for aliment & support to
hese kind of plants, is doubtful. All the Sarracenias are insect
ithers, & so is the Drosera Rotundifolia. (Bartram—)

Class 5. Orders.

Viola. V. Pubescens. Ang. Yellow Violet.

Gen. Desc. Calyx 5. leaved: corol irregular, with a horn behind (sometimes the horn is wanting) anthers attached by a membranous tip: capsule 1 celled, 3 valved: (Pubescens) leaves cordate, hairy. Catal. Blossoms yellow. In shady places. May—

It is said the Indians applied the bruised leaves to boils & painful swellings, for the purpose of easing the pain & producing suppuration. Cutler.

Class 20. Order 4.

Urtica. U. Gemilla Ang. Stinging Nettle. Richweed Urtica dioica Linn.

Gen. Desc. Staminate flowers — Calyx 4 leaved: corol 0: nectary central cyathiform. Pistillate flowers — calyx 2 leaved (2 valved) corol 0: seed 1. glossy. (Gemila) leaves opposite, ovate, racemes 2 parted, shortish, subcorymbed, annual —

Use. The young shoots early in the spring are a good pot herb. A leaf put upon the tongue & pressed against the roof of the mouth, is said to be efficacious in stopping a bleeding at the nose. The parts affected in paralytic cases have been recovered by stinging them with this plant. Dr. Withering says the stings are curious microscopic objects. They consist of an exceeding fine pointed, tapering hollow substance, with a perforation at the point, & a bag at the base. When the sting is pressed upon it readily punctures the skin; & the same pressure forces up an acrimonious fluid from the bag, which instantly squirts into the wound, & produces an effect which almost every one has experienced. The stalks are dressed like flax for making cloth or paper. The leaves cut fine & mixed with dough are very good for pudding. Ibid.

Urtica Gemilla vel Adenia. Ang. Water Nettle.

Class. Order & Generic Discription as above —

The footstalks of the leaves, & the stem of the plant is filled with water so as to make them transparent. Bruised the leaves upon scrophulous sores they allay their irritation. They are said to be excellent for fresh Wounds &c.

Class 20 Order 5-

Amaranthus- A. Melancholicus. Eng. Love lies bleeding. Prince feather-
Gen. Desc- Staminate flowers- calyx 3 or 5 leaved: corol 0: stamens 3 or 5. Pistillate
flowers. Calyx & corol as the staminate; styles 3: capsule 1 celled, opening transverse-
ly 1. (melancholicus) glomerules axillary pedunculed, leaves lanceovate colored
annual. native. exotic-
Use. A decoction of this plant drank freely has been found efficacious in
arresting hemorrhagies, when other powerful styptics have failed- Cutler

Class 11. Order 3- Nat. Ord- Euphorbiaceae

Euphorbia. E. Maculata. Eng. Spotted Euphorbia- Spurge
Gen. Desc- Calyx 1 leaved, inflated: petals 4 or 5, standing on the calyx: capsule
3 grained. (maculata) stem prostrate, forked, leaves hairy, spotted, annual. fl. white
This is said in the Transactions of the Philadelphia Agricultural Society
to produce the slobber or slaver in horses which eat it. It grows in corn fields-
J. W. W-

Class 5. Order 2-

Sanicula. S. Marylandica. Eng. Sanicle.
Gen. Desc. Flowers of the disc abortive: umbels crowded into head-like heaps.
seed prickly. (marylandica) forked, leaves about 7 lobed. biennial. fl. white.
Use. The root is warm & aromatic. & is is said to be good for pain in the breast
W. W. A decoction of the Sanicula Marylandica, or Maryland Sanicle
is said to be employed with good effect by some of the country practitioners, as a diuretic in cases of dropsy. This plant grows very abundantly in
many parts of the United States. Barton-

Class 8. Order 1.

Epilobium. E. Spicatum. Willow herb. Wickaup.

Calyx 4 cleft, tubular: corol 4-petalled: capsule oblong, & of great length: seeds feathered. - flowers reddish purple.

Use. It is very mucilaginous. Infused in hot water it renders it as ropy as slippery elm. A decoction of it has frequently proved highly serviceable in the dysentery - S. W. W.

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Class 18. Order 1.

Cnicus. C. Arvense - Arg. Canada Thistle.

Root perennial, round, almost the thickness of the little finger, of a dirty white colour: penetrating deeply, & creeping far & wide.

Stalk three or four feet in height, upright, somewhat branched at the base, round & somewhat woolly, above angular & smooth -

Leaves sessile, alternate lanceolate, cut in so as to be somewhat pinnatifid the sides somewhat folded together, sinuated, waved, & curled, spinous, above smooth, green, beneath pale, scarcely villous, & the uppermost one almost entire -

Flowers middle sized, of a pale purple colour, very fragrant.

Flower stalks leafy, one or two flowers, above somewhat woolly.

Calyx common to all the florets, ovate, contracted at top, imbricated the scales numerous, pressed close, lanceolate, sharp at the back, terminated by a pointed appendage, purplish, points turning a little back, & mild.

Corolla compound, tubular uniform, all the florets hermaphrodite, near equal, monopetalous, funnel shaped, the tube very slender, the limb divided into four, linear, reflexed segments one more deeply divided than the rest.

Stamina: five capillary filaments, very short & white; anthers united into a cylinder, shorter than the corolla, the mouth five toothed, the teeth white at the tips —

tillum: Corolla ovate, compressed; tube filiform, longer than the stamens; limb of a whitish red colour. Stigma obtuse, finally bifid.

Seeds linear, slightly four cornered: down feathered sessile.

Receptacle hairy, hairs glossy. Curtis's Flora Londiniensis—

After this minute description of the plant, Mr. Curtis makes the following observations on the method of destroying it.

We have bestowed on this plant the harsh name of <u>weed</u> with a view to awaken the attention of the agriculturalist to its nature & pernicious effects; repeated observation has convinced us that many husbandmen are ignorant of its economy, & while they remain so, they will not be likely to get rid of one of the greatest pests which can afflict their corn fields & pastures.

Of the thistle tribe the greatest part are annual or biennial, & hence easily destroyed: some few are not only perennial, but have powerfully creeping roots, & none so much as the present; in pulling this plant out of the ground, we draw up a long slender root which many are apt to consider the whole of it. but if those employed in such business examine the roots so drawn up they will find every one of them broke off at the end, for the root passes perpendicularly to a great depth, & then branches out horizontally under ground.

To give an idea of its astonishing increase, we shall subjoin from the memoirs of the Bath Agricultural society an experiment made for the very purpose of ascertaining it.

April 1st 1778. I planted in a garden a piece of the root of this thistle, about the size of a goose quill, & two inches long, with a small tuft of leaves, cut off from the main root just as it was springing from the ground: by the 2nd of November following this small root had thrown out shoots, several which had extended themselves were about six inches under ground, others had penetrated to the depth of two feet & a half, the whole together when dug up & washed from the earth weighed four pound. In the spring of 1779, contrary to my expectation, this thistle again made its appearance, on & about the spot where the small piece was originally planted; there were between

162 fifty & sixty young heads, which must have sprung from the roots, which had eluded the gardners search, tho' he was particularly careful in extracting them: When this paper was delivered to the society from experiments then made, I was of opinion that repeated mowing or spudding would not destroy this thistle. I have since been cause from further observation & experiments to think differently; no doubt however does it penetrate, that these operations are the only ones which can well be applied to its destruction, & if they do not effectually overcome, they will greatly enfeeble it. This species is seen every where by road sides, too frequently in corn fields, & more rarely in pastures; it flowers from June to August.

In the Flora Rustica of Dr. Martin, Professor of Botany in the University of Cambridge, you will also see a figure & description of the same plant, under the Linnean name of serratula arvensis. After describing the plant he observes: This thistle is known every where by road sides, too frequently in corn fields & more rarely in pastures; flowering from June to August.

It has the habit of the thistle, & is universally called so in English tongue Linnaeus makes it a serratula. It is the worst pest of arable lands, having strong creeping roots, sinking down to a great depth, & then branching out horizontally, so that it is very difficult to root it out when it has once got possession. Frequent & deep ploughing in dry weather will destroy it in arable land. In pastures it should be pulled or forked out when the ground is well soaked with wet.

To us mowing has always appeared to make it run more at the root.

The goat & ass will eat it; horses will sometimes crop the head when tender, but as other cattle seem to touch it. It is said to yield a very fine vegetable alkali when burnt."

Such is the information to which I have been led in the examination of the Canada Thistle. In addition to the practice of frequent mowing & spudding, as the best means of destroying this weed, I would suggest the following mode of culture:

1st After deep & frequent ploughing to cleanse the ground with corn, potatoes or some other crop which will admit frequent hoeing & cleaning.

2nd In the autumn after taking off the crop, again to give the land another deep ploughing leaving it the rough state, so as to expose the roots of the thistle to the frost of the ensuing winter. This process will also the better prepare the soil to be laid down in grass the following spring. In doing this I would also suggest the propriety of

by sowing a much greater quantity of grass seed to the acre than is usually sowed
; pursuing the practice recommended by Lord Kames, of sowing from twenty to twenty fou
unds of clover seed to the acre. I have remarked that the grounds at the Elgin Bota
garden are much more free from weeds than those of my neighbors, at the same
e that the grass is much more delicate for feeding. It is apt to be thrown down
the storm, & makes a less succulent hay, both more easily cured & better preserved
ere where it is more thinly spread, but of stronger growth. How far these may prove
ditional means of counteracting the growth of the thistle in question, I submit to
e & other practical farmers. David Hosack — Hon. Saml. L. Mitchill —

Class. Order.

Physalis. P. Alkekengi — Ang. Winter cherry —
The berries of this the only part of it ever in use are not known in the present pra
e & I have never seen them employed; but I have some reports of their being em
loyed by others without effect: & if their diuretic powers had ever been remarkable, we
ay presume that they would still have continued in use. I cannot dismiss them with
t an observation, that as it is allowed that the berries often take a taint
from the leaves of the plant, it will always require some caution in employ
ing any part of a plant which is taken from an order of a very poisonous kind. Letter

Class 18. Order 3.

Helianthus. H. Tuberosus — Eng. Jerusalem Artichoke —
~~Frequent description~~ See page 127 — Artichoke Cynara Scolymus —
Gen. Des. Calyx imbricate, subsquarrose, leafy: receptacle flat, chaffy, egrete
ved, deciduous (tuberous) lower leaves heart ovate. root tuberous. Inven. Ct. Yellow
flow. The Jerusalem artichoke is a plant of the same genus as the sun flower. It pro
duces bulbs at its roots, has been long cultivated in gardens as an esculent vegetable,
except that it is watery & of a softer consistence, in many respects resembles the
potato, but is not in such general esteem. This root is however much valued for
feeding hogs & store pigs. Mr. Peter, the author of "Vente Rice" published in the
year 1798, asserts that from one acre of ground he obtained between seventy & eighty
ns of this root. He is of opinion that seven acres will yield three hundred & nine
ty tons, which will keep one hundred swine for six months, allowing each half-

table to six pounds per day, at an advance of value from ten to fifteen shillings, especially if they be boiled with sweet hog wash.

When these roots are given to horses, they should be washed, cut, & ground in an apple mill; the proportion given at each time is eight pounds, with two ounces of salt & a bite of hay thrice daily.

J. Nottle celebrated cultivator found the produce of this root to be about Four hundred & eighty bushels, Winchester measure, per acre, without any dung. Its chief recommendations are the certainty of a crop; its flourishing almost upon any soil: but not requiring manure, & being proof against the severest frosts.- The culture is the same as that of potatoes. Dom. Enc.

If this plant could be propagated by seed it might make an useful product in agriculture, as horses are very fond of the leaves, & some of the roots both of which are produced in great quantity; & as the latter contain much sugar they must be very nutritive; & in respect to their culinary use are remarkably grateful to most palates, as well as nutritive when cut into slices, & baked in beef or mutton pies. but are said to be flatulent in the bowels of those whose digestion is not very powerful; a property which might be worthy of attention, where the propensity to fermentation is required, as in making bread with potatoes, or in the distillery. - Darwin's Phytologia -

See Mass. M. vol. 1. page 64.

Class 18. Order 2.

Gnaphalium. G. Uliginosum. Ney. Cudweed

Gen. Des. Calyx imbricate, with the marginal scales rounded, scarious, shotish, yellow, coloured. receptacle naked: egret filose, or plumose (Flowers often all perfect) (Uliginosum) - stem much branched, leaves lanceolate linear tapering to both ends. racemes crowded terminal. annual. white -

Use. It has a root that creeps every way, & the leaves that proceed from it lye on the ground; these are oblong with a roundish point of a light green colour, & have on the under side; among which arise the stalks to near a foot in height which are covered with a sort of down or cotton; & the leaves are long & narrow. The flowers are on the top of the stalks, which consist of flowers in the form of a star, which are placed on an embryo & comprehended in a scaly, shining cup. This turns to seed with downy threads therein. It is cooling in regulating, & astringent, & has been recommended in disorders of the lungs, as well as for stopping catarrhs. & there has been a considerable in the shops for these purposes. - Brooks —

Class 20. Order 2.

Lemna. L. Minor. Ang. Duckmeat.

Gen. Desc. Staminate flower - calyx 1 leaf: corol 0: Pistillate flower - calyx 1 leaf: corol 0: capsule 1 celled, 2 seeded (minor) leaves oval flat both sides covering the stem, root solitary.

Duckmeat is generally seen on the top of stagnating waters, where it swims in a green mass & the whole surface is covered with small leaves flat on the upper side, round, & compressed like a lentil. They are greenish above but blackish below, & they are tied together with very slender white filaments from which as roots they receive their nourishment. They have neither flowers nor fruit, at least none that are yet discovered. Ray looked upon the infusion of duckmeat as a secretary against the jaundice. When six ounces of it are taken in white wine for nine days together in a morning fasting. Some have used as a cataplasm against the gout, & to ease the pain of the piles. It is called duckmeat because ducks are very fond of it. Ibid.

Class 13. Order 13.

Hepatica. H. ~~Nobilis~~ Ang. Noble Liverwort.

Gen. Desc. Calyx three leaved: petals 6 to 9: seeds naked.

This has a fibrous perennial root, composed of several heads or knots, from each of which the flowers proceed, & then the leaves, which consist of three lobes growing on a footstalk that rises from the root; the footstalk of the flower is naked & single, & the calyx consists of one leaf cut into three segments. The flowers are numerous, & are composed of six or eight blue petals, & many stamina with thin sharp pointed; the pistil is globous & warty, & turns to a head containing several sharp seeds. There are other kinds with flowers of different colours by which they are distinguished from each other. It is accounted a vulnerary, but is now of little or no use among us. Though many affirm it is cooling, gently astringent, & an excellent strengthener when the fibres are lax. Ibid.

Class Cryptogamia. Order 1.

Polypodium. P. Vulgare. Eng. Gen. Polypody.

Gen. Desc. Capsules disposed in round scattered dots, on various parts of the lower surface of the frond: vulgare, frond pinnatifid with oblong obtuse subcrenate lobes, root with chaffy scales—

It has a root six inches in length, & almost as thick as a man's little finger, that creeps along the surface of the ground; it is full of tubercles or warts & is easily broken. It sends forth leaves, which are like those of male fern, but much less, & they are deeply cut almost to the rib, into long, narrow segments which are covered on the back part with a sort of reddish powder. This examined through a microscope appears to be spherical, membranous shells, which open & let fall small yellow seeds, in the form of a kidney. It is a capillary plant, & consequently bears no flowers; it grows in forests, valleys & among stones covered with moss, as well as on the trunks of old trees. The root only is used in medicine, & that is accounted best that is found upon oaks. It is green all the year, & in April it sends forth fresh leaves. The ancients accounted this root to be purgative, but it does not so much open the belly, or at least very weakly. Some affirm that it opens obstructions of the viscera. but the best authors are not agreed in its virtues, though it has been much used in medicine— Ibid.

Class 18. Order 1.

Carthamus. C. Coeruleus. Eng. False Saffron. Ladies Thistle.

Gen. Desc. Calyx ovate imbricate with scales; ovetish. hairy at apex: egret chaff hairy or none: receptacle chaff bristly. (coeruleus) egret hairy, leaves thorny toothed. herb. bien. This has a long thick fibrous root, & long, broad, sinuated leaves, serrated on the edges, with many hard, shining, smooth, stiff prickles, of a light green colour, & variegated with lines or stripes of white. The stalks are about as thick as ones finger, streaked, & covered with a hairy down, & are branched, & are two or three cubits high. The flowers grow on the head of the branches, & consist of many purple tubulous floets, divided into five parts at the top, each of which are placed on an embryo in a scaly, prickly calyx. Each embryo turns into a smooth

al seed, a little flattish & furnished with down. It grows in uncultivated places & by the way sides. The tender leaves after the prickles are taken off, are eaten boiled as a salad, & they are said to have the same virtues as carduus benedictus. The seed is excellent for the pleurisy, rheumatism, & pains of the breast, & is given in emulsion from one dram to two. Ibid. See my M. M. vol. 1. page 61.

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Class Cryptogamia. Order 1.

Asplenium. A. Rutamararia. A. Trichomanes. Eng. Spleenwort.

Gen. Desc. Capsules in lines parallel to each other situated exactly upon the secondary veins of the frond: involucres opening inwards. (By the secondary veins is meant those in the middle part of the disc, not the larger ones at the margin or midrib. The parallel lines of capsules may stand obliquely with respect to the midrib, but their direction must be parallel to each other.) (rutamararia) frond only pinnate at top. Other Effects.—

This is a small plant, six or eight inches in height: leaves upright, narrow & pinnated, the ribs are blackish, pinnae in pairs annexed, gradually diminishing towards the top.

It grows in bunches in low wood, near moist meadows & among rocks.

Its leaves are pectoral, aperient, & diuretic. They open obstructions of the viscera, promote expectoration, assist urine by cleansing the kidnies, allay pain in the urinary passages by gently carrying off sand & gravel, & lessen the venereal disease.

Put an handfull of the dry plant into a quart mug, & fill it up with boiling water. dose a teacupfull taken four times a day, sweetened with honey. In the cure of hypochondriac affections, the patient may take a spoonful of the expressed juice of the plant twice a day, beginning the first day to take but half a table spoonful at a time. Idiots have had their reason restored by drinking the juice of this plant.— I have been credibly informed of a countryman who came down the river Delaware with rafts as far as Trenton, who had there the misfortune of catching the venereal disease. & that on his return he met with an Indian squaw, who by the use of this plant cured him in a few days. Henry.—

Class 18. Order 1.

Vernonia. V. Noveboracensis. Eng. Devil's Bit. Quer.

Gen. Desc. Calyx imbricate, ovate; equal double, exterior chaffy, & short, interior capillary; receptacle naked; stigma a cleft shortish. This is called Scabious by some. It has a perennial short root, that seems to be bitten off in the middle, & it is furnished with long fibres. It sends forth oblong pointed leaves like those of common Scabious, but they are whole & not cut, except those on the upper part of the stalk, which are crenated on the edges, & are greener above than below, as well as rough & covered with such short hair that they seem to be smooth. Late in the season, there arise from among the leaves several stalks, that are round, firm, reddish, branched, & have two small leaves at each joint, which flowers at the top like those of the common Scabious; but the heads are thicker & of a bluish colour, though sometimes they are purple or white, these are succeeded by several round furrowed seeds. It grows in uncultivated places & in meadows, & pastures, & it flowers in the autumn. It has been looked upon as an alexipharmic, & vulnerary, & has been by some reckoned excellent in the quinsey, & in venereal ulcers of the mouth, & throat. Boorhs—

Class 12. Order 1.

Eugenia. E. Caryophyllata. Eng. Clove-tree.

Gen. Desc. Cal. & part. superior. petals 4. Bacca 1. loc. 1. sperma.

Use. This is a beautiful tall tree, a native of the Molucca Islands. Cloves are the unexpanded flowers, which are dried by fumigating them & then exposing them to the sun. They have a strong aromatic odour & a pungent taste. They afford to water their flavour principally; to alcohol their taste. By distillation with water they yield a fragrant essential oil not very pungent. The oil of cloves commonly met with is rendered acrid by certain adulterations.

Cloves are among the most stimulating aromatics; the dose of them does not exceed from five to ten grains. They are employed principally

adjuvants, or corrigents to other medicines. The essential oil is used with the same intention, & likewise as a local application in tooth-ach; but from its pungent nature, it is apt to corrode the gums & injure the adjacent teeth. Thacher.

Class 16. Order 10.

Robinia. R. Pseudo-acacia. Eng. Locust-tree.

Gen. Dec. Calyx 4 cleft, upper division 2 partid: banner large, reflexed, roundish, legume gibbous, elongated. (pseudo-acacia) racemes pendent, legumes smooth, stipules spinous, woody. Fl. white.

The locust tree is a native of the United States, but was not known north, east of the river Potomac, before the white settlers brought it from thence. It is the robinia pseudo-acacia of Linnaeus with a white & fragrant blossom. It has superior advantages for beauty or use to most trees of foreign or domestic growth. The delicacy of its green shade is most pleasant to the eye, & so agreeable to vegetation, that the earth beneath a locust grove, or within the umbrage of a single tree is covered with a luxuriant foliage of tender grass. The odour of its leaves is pleasant, but that of its papilionaceous blossoms is delightful. As an ornamental tree it is not excelled by any forest tree of our own country. When in full foliage no tree has a more delicate appearance to the eye of the beholder, or a more agreeable shade to man or beast. Some admire the dogwood (cornus florida) some the bean tree (bignonia catalpa) others the horse chestnut (aesculus hypocastanum) some the white wood or tulip tree (liriodendron tulipifera) all natives of our own forests; but none of them can compare with the locust either for beauty or utility. It therefore appears of importance to inquire into its properties, & point out some means of cultivating it to advantage.

The locust tree is of quick growth, the wood of which is hard, durable, principally used in ship building. In a country situated like the United States with an extensive line of sea coast, penetrated by numerous bays, & giving rise to many great rivers whose banks are covered with forests of extraordinary growth, whose soil is both rich & variegated, whose climate is agreeable & diversified by a gradation of temperature; to such a country inhabitants

180 for an industrious & enterprising people, commerce both foreign & domestic must con-
stitute one of the principal employments. As long as this country possesses the necessary
timber for ship building, & the other advantages which our situation affords, the gov-
ernment will continue to be formidable to all other powers. We have within ourselves
four materials necessary for the completion of strong & durable naval structures
These are the live oak, locust, cedar & pine, which can be abundantly supplied
The former is best for the lower timbers of a ship, while the locust & cedar form the
upper works of a frame. The pine supplies the timber for decks, masts, & spars
A vessel built of live oak, locust & cedar will last longer than if constructed
of any other wood. The locust a native of Virginia & Maryland is in such demand
for foreign & domestic consumption, that it is called for before it can attain its
full age. It has been cultivated as far eastward as Rhode Island, but begins to de-
generate in quality in that state. Insects attack it there which are not found
in New York or its native situations. These give the timber a worm eaten appear-
ance, & render it less useful. The locust has been extensively raised in the north-
ern parts of New York, but the call for it has been so great, that few trees attain
any size before they have been wanted for use. Hence they are in great demand
& ready sale, & no ground can be appropriated for any kind of timber with so
much advantage as locust. Besides its application for ship building it is extensive-
ly used for fencing; & for posts no timber will last longer in or out of ground. On
Long Island, where wood is scarce, & fencing timber in great demand, the locust
becomes of much local importance from this circumstance alone, independent
of its great consumption in this city among the carpenters. In ship-building it
is not exclusively applied to the interior or frame. In many places where strength
is wanting locust will bear a strain which would break oak of the same size
There an oak tiller has been known to break near the ~~tiller~~ head of the rudder
in a gale of wind which has never happened with a locust one. Tillers for large
vessels are now uniformly made of locust in New York. It is the best timber
for pins or trunnels, & preferable to the best of oak. The tree generally grows
straight with few or no large limbs, & the fibres are straight & parallel which
makes it split well for making trunnels, with little or no loss of substance. These
are made in considerable quantities for exportation —

The locust tree does not bear transplanting in this part of the country, & in all probability this arises from the custom of cutting off the roots when taken up for that purpose. Most of the roots of the locust are long, cylindrical, & run horizontally not far under the surface. In transplanting, so few of them are left to the body of the tree removed, that little or no support is given to the top, & it consequently dies. If care was taken not to destroy so much of the roots, a much larger proportion of those transplanted would live & thrive. So great has been the difficulty of raising the locust in this way, that another method of propagating has been generally resorted to. Whenever a large tree is cut down for use, the ground for some distance around has been ploughed, by which the roots near the surface have been broken & forced up. From these roots suckers shoot up, & the ground soon becomes covered with a grove of young trees. These, if protected from cattle & fences, will grow most rapidly & the roots continuing to extend new shoots arise & in a few years a thrifty young forest of locust trees is produced. The leaves of locust are so agreable to horses & cattle, that the young trees must be fenced in to preserve them. When growing in groves they shoot up straight & slender as if striving to outstrip each other, to receive the most benefit from the rays of a genial sun.

Another difficulty has arisen in propagating the locust from inability to raise it from the seed. The seed does not always come to perfection in this state & when it does, it will not sprout unless prepared before planting. The method adopted for this purpose has been long ago proposed by Dr. Bard, but it is not generally known, or if known is not usually attended to. When this shall be well understood & practised the locust will be easily propagated, & then instead of raising groves of them, the waste ground along fences & places where the useless Lombardy poplar encumbers the earth, should be selected to transplant them separately in single, there will be an economy in using the soil, & the trees will grow much better & stronger timber.

Dr. Bard's method of preparing the seed was to pour boiling water on them & let them stand & cool. The hard outer coat would thus be softened, & if the seed swelled by this operation, it might be planted & would soon come up. This has been followed with success on Long Island, & on a late visit to North Hempstead I was led to admire Judge Mitchell's nursery of young locust plants this spring.

He gathered a quantity of seed ~~planted~~ on the island, & put it in an earthen pitcher & poured upon it water near to boiling. This he let stand for 24 hours, & then drained it & selected all the seed that were any way swelled by this application of heat & moisture. To the remainder he made a second libation of hot water & let it remain also 24 hours, & then made a second selection of swelled seed. This was repeated a third time on the unchanged ones, when nearly all were affected, & then he prepared the ground & planted them. He planted the seed in drills about four feet apart & in eight or ten days they were all above ground, & came up as regularly as beans or any other seed that are cultivated in gardens. When I saw them the middle of July, they were about a foot high, & thrifty & of a good colour. It is the Judge's intention to leave them in their present situation about three years, & then transplant; & provided he does not mutilate the roots in removing them they will bear transplanting, live, & thrive, & be the most productive tree that a farm can have. This method of preparing the seed, & planting the locust, cannot be too warmly recommended to the farming interest. Sam: Akerly. American Monthly Mag. vol. 1. p. 363.

Class 18. Order 2. Nat. Ord. Compositae

Erigeron. E. Canadense. Eng. Canad Flea-bane.

For Generic Description see page 108. Art Erig. Philadelph.

Recept. nudum. Pappus pilosus. Corol. radii linearis angustissimae

The Erigeron Canadense is an annual plant. It appears to seek a dry, gravelly & somewhat elevated soil. I have known it arrive at perfection on the roof of a house where the roots found only sufficient ground to support its weight. Its usual height is about four feet, though it sometimes grows to six feet. The stem is hairy, & has sometimes branches near the top in the form of a cone. The specimens which I have examined, had the lower leaves subbiennate agreeing with the account of Scopoli in his Flora Carniolica "Foliis inferioribus dentatis" but a gentleman informed me that in the vicinity he has sometimes seen the upper leaves dentate, which reconciles the authority of Scopoli with that of Pathering, who says "the leaves above with distant serratures." The calyx is short linear & somewhat longer. It flowers from the beginning of August to September. The flowers are very small, on slender peduncules; yellow in the centre; in the circumference white with a tinge of red.

manner in which Lamoni expresses the colors of the petals of the flowers (five petals) is not sufficiently definite; the pale ground has a tinge of yellow, diffused into every part of the plant as Clayton observes is odoriferous; & diffuses an agreeable flavour through the field when the flowers are in full bloom.

<u>Medical Use.</u> This plant has been reputed as an antidote to the bite of serpents, poisonous reptiles, & as efficacious in resolving tumours.

The Erigeron Canadense was first introduced into the practice of the New York Alms House in 1812 by Dr. Gilbert Smith, the attending physician. It was recommended to him by a medical gentleman who had witnessed its efficacy in a case of diarrhoea, after the usual remedies had failed to afford relief, & was speedily cured by a decoction of this plant, under the direction of a female acquaintance. The decoction & infusion were administered in the Alms House with decided advantage in diarrhoea. Several distressing cases were cured & others relieved by a few doses. But it also sometimes disappointed our expectations, & what at first appeared in some instances unaccountable, evidently aggravated the complaint. This was owing to the preparations spoiling in warm weather before the quantity allowed was taken. I then prepared the extract & tincture, both of which succeeded in curing a great majority of cases in which they were taken. After proper evacuations, a few doses were generally sufficient in ordinary cases that had not become very inveterate. It was sometimes intentionally given in some instances of recent diarrhoea without any previous evacuations, though they were obviously indicated; in almost every case of this kind it averted the complaint as speedily as when evacuations had been premised. A friend of mine was attacked with a troublsome & debilitating diarrhoea, during a visit to the city. He was anxious to be immediately cured — two doses of half an ounce of the tincture had the effect. But is manifestly improper to restrain diarrhoea when the contents of the bowels are irritating, before they have been thoroughly evacuated — pain may be the consequence. I have known this to follow such premature use of the Erigeron Canadense. I was unable to try its efficacy in many cases of chronic diarrhoea in consequence of the smallness of the quantity of flowers which I had gathered, but in some cases of long standing were completely cured & others were much relieved by a few doses which were given only to

observe its operation. Six doses, consisting of only one grain of the extract completely cured one patient sixty years old, of a debilitating diarrhoea, with which she had been afflicted for two months, & by which she was very much debilitated.

Whilst it lessened the frequency of the alvine discharges, it generally though sometimes but temporarily, quieted the pain & griping attendant on diarrhoea. The tincture & extract almost uniformly increased the quantity of urine, & it not unfrequently operated as a powerful diuretic. In Cases where diarrhoea depended on affections of the liver, as might be expected, received at best but temporary benefit from the use of the Liriodendron.

~~Best diuretic~~ It is worthy of remark that the Liriodendron Tulipifera was, in no case, accompanied by those auxiliary means which we find it sometimes advantageous, & even necessary, to combine with those more active remedies on which chief reliance is usually placed. The increase of urine which was uniformly observed to attend the use of the tincture & infusion, induced me to prescribe the latter in a case of Ascites, in which the quantity of urine was considerably less than natural. The patient was directed to take a pint of the infusion daily; his ordinary drinks were so regulated as not to interfere with the result. The quantity of urine amounted the next morning to twenty four ounces. The same quantity of the infusion was continued, & the secretion increased until the fifth day, when it amounted to sixty seven ounces; the swelling had evidently subsided. He now objected to continue the use of it, on account of the taste being unpleasant to him, & was ordered to take calomel & squills by the attending Physician.

I once gave the tincture in a case of Dysuria in a patient subject to frequent strictures, accompanied by painful contraction of the bladder, & a scalding in the urethra; the relief it gave him was so speedy & complete, as to induce him to accompany his thanks with the most lively expressions of gratitude.

It has already been observed that the infusion & tincture operated more powerfully on the kidneys than the other preparations, which makes it probable that its diuretic quality depends on the aromatic property or essential oil it contains. The tincture may be made by digesting one ounce of the leaves in a pint of brandy or diluted alcohol, & filtering it after eight

ys; this possesses the pleasant flavour of the plant & is an elegant preparation as it possesses all the qualities of the plant in a small compass. The volatile is dissipated in making the decoction & extract, but the latter is convenient & powerful preparation if carefully made. If the decoction be preferred it should be made with milk — one ounce of the leaves to a quart of milk, makes rather a pleasant drink which is rarely objected to by children.
Vide Dr. Physy. Transactions of the Phys. Med. Society N.Y. Vol. 1. p. 249 —
Sewny M. M. vol. 1. page 75

Chimaphila umbellata. allied genus Pyrola —
Class Decandria. Order Monogynia. Nat. Ord. Ericae.
Pyrola. P. Umbellata. Eng. Umbelled Wintergreen. Pipsissawa —
Gen. Desc. Calyx quinque partitus. Petala quinque. Capsula supera. quinquelocularis. angulis dehiscens. polysperma. Antherae, poris duobus.
Specific character. Floribus subumbellatis —
In Dr. Rees. Cyclopedia the following description of the Pyrola umbellata is to be found. Umbelled signifies that the flower opens broad at the top, like an inverted bell. "It is a native of the woods in the northern part of Europe, Asia & America. Mr. Pursh found it frequent in dry woods from Canada to Virginia. Of the twelve different sorts, Dr. Sims asserts this to be the most beautiful of the genus. The stem is woody a span high, somewhat branched, regular & rough. Leaves crowded together into something like whorls, stalked, narrow, obovated, bluntish, strongly serrated, dark green & veiny above; paler beneath about an inch & a half long. Flower stalks terminal, solitary, three inches long, reddish, bearing about five imperfectly umbellate, simply, partial stalks, each an inch long, spreading rough with glandular pubescent flowers larger than the other kinds & drooping. Petals orbicular, concave, cream coloured, crimson at the base. Stamens short, red, all regularly inflexed. Anthers short, purple with white tubular pores, dilated & lobed at the orifice. Germen globose, green. Style thick & very short, but certainly present. Stigma orbicular, convex with five slight notches. The American specimens are generally less umbellate more racemose than the European."

186 Note. The highly respectable character & reputation of Mr. Cooper, precludes every doubt of the truth of the following statement, which is extracted from the New Gloucester Farmer, a valuable paper printed in New Jersey. Boston Intelligencer.

Cure of Cancer. In looking over one of your papers I observed an extract (I think from an eastern paper) which mentioned that Pipsissaway would cure the cancer but made no mention of the manner of using it. I have been troubled with something on the side of my face, which I feared was of the cancer kind, as its progress & appearance was similar to several I had seen in the early stages which proved fatal. I shewed it to Dr. Bowman Hendry, who advised Lead water, which I tried as he directed, but it continued to increase in size & uneasiness, so that I could not shave myself on its account. But on one of Dr. Logan's visits, I showed it to him, & related what I had seen in your paper. He said he had seen the same, & no direction how to use it; but advised making a strong decoction of the herb, & with a soft rag wet it as often as convenient, & drink freely of the tea. I followed his advice, & often held the wet rag to the part affected several minutes at a time, & frequently wet it when I awoke in the night. The lump soon began to decrease after the commencement of the above treatment, & in less than three weeks totally disappeared.

I had several scurvy places about me, one near one of my eyes, which had been troublesome for several years past. I tried the decoction of them as to the other, with the like success. As the Cancer is one of the greatest calamities that ever afflicted the human frame, & prevention is preferable to cure & the above method perfectly safe & easy I think it my duty to recommend & advise all persons, who may apprehend occasion, to make trial. Yours Joseph Cooper.

P.S. This is said to be a remedy not only for the Cancer but also for the Dropsy & may be drunk as a substitute for Chinese tea, & in this manner has been used by a physician of very high standing in this Country.--

An account of the diuretic effects of the Oyrola umbellata of North America, was read at the last meeting of the Medico-Chirurgical Society. This plant has long since been used by the Indians in cases supposed to arise from defective secretion of urine, & promises to be a valuable acquisition to the materia medica. It has the property

creasing the appetite, & has been found serviceable in some cases of dropsy. N. Eng. Jour. of med. & surg. p. 193.

A Case. Mr. Carter hospital surgeon at Fort William Henry in a letter to Wm Commeville M. D. states that having a patient, private John M'Can of the 49th regiment, labouring under ascites, & after administering digitalis, chrystals of tartar, & other diuretic medicines to no effect, the water in the abdomen continued to increase rapidly. I was resolved previously to any making use of the trocar to try the effect of the herb de raigne (the Indian name for the Pyrola umbellata). He commenced taking a strong infusion of the plant on the 15th instant April 1811. The next morning when I visited the hospital, I was agreeably surprised, when he informed me, that he had voided more water in the night than he had done in three nights & days previous put together, which I believe to have been the case from the quantity he showed me he had made in the night. The colour of his water was entirely changed from that of brick dust to the colour exactly of the infusion of the herb he had drunk. The water in the abdomen continues daily to decrease, & I have the most sanguine hopes of his speedy recovery.

The herb does not appear to possess any narcotic quality, being perfectly innocent in its operation.

Dr. Commeville says:- With a view of ascertaining the power of the medicine I ordered a pint of the infusion to be drunk by a young man who had fractured his arm, but who was in perfect health in all other respects. He was not prepared to look for an increase in the quantity of his urine. He informed me next morning that he should have slept well, if he had not been constantly waked by calls to make water.

The herb called by the Indian de raigne & by the Canadians l'herbe a fièvre, is the pyrola umbellata of Linnaeus.

I have generally found the good effects of the pyrola upon the stomach. As far as my own experience or information extend no circumstance has occurred to forbid the use of it in any form, or to limit the dose. The surgeon of East York militia was cured of dropsical symptoms by the extract of Pyrola.

Dose a pint of the strong infusion of the pyrola in twenty four hours — Med. Chirurg. Transactions.

See Med. Dict. Med. vol. 1. page 64

Excoecaria Agallocha
b
Apulama mita
a
b
c
d
e
f
g

On the aromatic Wood of Aloe, with a Botanical description of the Decis-
aria Agallocha, & the Agallaria ovata:— By Professor Willdenow of Berlin.

The agallochum which is known by the name of aloe wood, or the aromatic aloe, is one of the most valuable spices imported from the East, & has been held in the highest estimation even in the earliest ages. According to the different species of the plant it is called lignum aloes, agallocha vera, aquilae & calambac, all of which differ remarkably in their sensible properties. It is however very difficult to ascertain the botanical character of these various species.

The aromatic wood of aloe is properly a resin, which has pervaded the fibres of the tree. The genuine sort of this ~~precious~~ resinous wood is as precious as gold, & is used only by the great & affluent in the East Indies, China & Japan, as an agreeable perfume, with which they fumigate houses; hence it is but rarely imported into Europe. It is black & variegated with grey veins, swims on water, & if strongly rubbed on glass leaves behind resinous particles, which neither water, saliva, or fixed oils, nor an alkaline lye, but spirit of wine only, will dissolve & remove. Its odour is very grateful.

This substance has in former times been much used as a medicine, not only in biliary complaints, diseases of the liver & stomach, & dysentery, but likewise as a remedy for the maw worm, but at present it is entirely neglected:— a revolution to which several of the ancient remedies have been subject, & which is likely to take place with many of the modern.

Father De Loureiro assures us that he discovered in the province of Cochin China the tree which affords the true aloe. This aromatic wood is found in resinous masses, only in old, half decayed hollow trees. According to this writer the tree belongs in the system of Linnaeus to the first division of the tenth class, the Decandria Monogynia: he called it the Aloexylum Agallocha. It grows in the highest mountains in Cochin China, on the banks of the rivers, by which flows thro' the whole of that province. Loureiro had no opportunity of seeing the blossoms on the tree: he could only once obtain them dried, & transmitted to a friend, so that the parts of fructification were much bruised & lacerated on a long journey. He could with difficulty give the following description:—

Alocxylum Agallochum. Differ. spec. Aloe. foliis lanceolatis, alternis, pedunculis polyfloris, terminalibus. — Hab. Arbor magna. Trunco & ramis erectis, altissimis. Cortice cannabino, fusco, glabro, nec crasso. — Folia lanceolata, octo poll. longa, integerrima, plana, glabra, subcoriacea, alterna, petiolata. Flos terminalis, pedunculis polyfloris. Usus. — Ligni hujus fusiminta inter omnia maxime aestimantur, apud nationes Orientales. Ex arboris cortice fit vulgaris Charta in qua Cochinchinenses scribunt, sicut in Japonia ex cortice Mori. Virtus medica. Excitans, corroborans, cephalica, cardiaca. Suffitus valet contra vertiginem & paralysim. Pulvis cohibet vomitum & fluxus ventris, praecipue lientosis, quod non proprie astringendo, sed corroborando agit.

This tree is not of a poisonous nature, & yields no milky sap when perforated. With respect to the genuine wood of aloe, Loreiro maintains that the various species differ remarkably, both in colour & flavour. By some botanists this aromatic wood has been confounded with the Lignum Aquilae, which is likewise esteemed for its agreeable odour, & like the Agallochum verum, Calambac, & Garo de Malacca, affords the different species of perfume.

Aquilaria Ovata.

Gen. Desc. Calyx turbinatus, coriaceus, semiquinquepartitus, laciniis ovatis acutis patulis persistentibus. — Corolla nulla. — Stamina: circiter calyci imo adherens, monophyllum quinquepartitum, laciniis crassis tomentosis profunde bifidis, adeo ut decem videri apparent. Ex singulis divisionibus solidum adsurgunt filamenta brevissima squamulis breviora: antherae decem, oblongae versatiles. — Germen in squamulorum centro & fundo calycis, ovatum, coronatum stigmate brevi simplici: foveolus: capsula pyriformis lignosa, bivalvis, bilocularis: dissepimentum, bifoveolatum

bilissimus — Stipulae ovallae. — Florum [illegible] & [illegible] multi signotes —

Of this plant we have given our readers an accurate copy taken from the work we quoted: & it is remarkable that Lureiro describes probably the same plant in his Flora Cochinchinensis: under the name of Ophiopogum Chinensis; as it differs from the former only by a long filiform style, & a bifarious stigma. Perhaps this apparent difference arises from the flower of the plant described by Cavanilles having been injured by being dried & compressed between paper. He has given no description of the Calyx, & is of opinion that it does not exist. Professor Willdenow however supposes that the specimen in question is in this respect incomplete. The fruit is a compact, ligneous, oviform, compressed, two-celled capsule. Each cell contains a seed with a fungous edge. According to Linnaeus this plant belongs to the first order of the tenth class, the Decandria Monogynia. Sonnerat & Kaempfer assure us, that the genuine wood of aloe, which is so highly valued, is obtained from this tree; & it is nevertheless probable, that several trees afford that precious drug; for all writers on the subject observe that the difference among them, both in scent & odour, is remarkably great. For the same reason Professor Willdenow is inclined to believe that the Pancoecaria Agallocha of Linnaeus yields a similar drug, which has been introduced into commerce, under the specious name of aromatic aloe. — The reader will find a sprig of this tree, with male flowers, on the annexed plate; & as the work of Linnaeus is generally known, we shall, instead of transcribing his description, translate that given by Professor Willdenow in German.

This tree (says he) grows wild in the East Indies, & belongs to Third order of the twenty-second class of Linnaeus, the Dioecia Triandria, that is the male & female flowers grow on distinct stems, & the male flowers have three filaments. The trunk of this tree is of a very considerable size. The bark on the smaller branches is of a light brown colour, smooth, & somewhat cracked. The leaves come out alternate, are petiolate, ovate, sharp-pointed, entire, coriaceous, of a deep green colour & glossy on the upper surface. The flowers are disposed axillary, on several ziklets. The male flowers are green, & in their growing state short & columnar. The filaments are gradually developed, become progressively longer

& have yellow anthers. Linnaeus asserts that the male catkins are composed of nine filaments, three of which uniformly stand together. But, on the male flowers (which only the Professor had an opportunity of examining) he observed a roundish pointed scale, a small corolla of two petals, & three anthers.

The female flowers are green, arranged in catkins, & formed like the male flowers. The germ is round, & has three styles. The fruit is a three celled capsule. On cutting the tree, a quantity of milky sap flows from the orifice of the wound, & if it be brought in contact with the eye, occasions blindness. In very old hollow stems, there is a resin which has penetrated thro' the brittle wood, & is likewise known in commerce by the name of lignum aloes.

From this account we may conclude, that the best & most valuable wood of aloe is contained in the Alexylum Agallochum; next to that one of an inferior quality from the Aquillaria Ovata, & the most indifferent kind from the Excoecaria Agallocha.

Explanation of the Plate.

Excoecaria Agallocha: a. A branch of the natural size, with the catkins just opened.
b. A catkin in full blossom.

Aquillaria Ovata: c foliated branch
a. b. two flowers of the natural size.
c. The flowers represented full blown, but somewhat magnified to display the nectary, with the stamens & the pedunculus.
d. The nectary magnified with the filaments.
e. A filament with the anthers much magnified
f. The fruit with the calyx of the natural size.
g. The same divested.

We are indebted to a correspondent whose hand is signed Philo & is dated August 26th for the following communication, which we presume will not be overlooked by our botanical readers. — Ex fungo

~~Phanerogamia~~

Class 3. Order 1.

Eriophorum. E. Cyperinum. Eng. Cotton Grass. Hare tail rush.

Gen. Disc. Glume chaffy imbricated every way: seed beset round with very long dense woolly hairs (cyperinum.) panicles three compound one growing from the top of another. perm.

Use. Sheep in March & February. Sheep are remarkably fond of it, not only of the leaves but of the roots, working in the ground up to the eyes to get them. Shepherds assert that sheep reduced by hunger will recover faster & thrive much better upon this plant than turnips. It is a valuable plant for three or four weeks; but after it has flowered the sheep totally neglect it. Wicks of candles are made of it by the poor. Grows naturally on moors & bogs. Rushes & sedge are mown for litter & for fodder. (Gleanings of Husbandry)

Class 12. Order 13.

Spiraea. S. Trifoliata. ~~Ita~~ Eng. Meadow Sweet. Bowman's root. or Indian physic

Gen. Disc.

Class 18. Order 2.

Artemisia. A. Vulgaris. Eng. Artemisia.

Gen. Disc. Calyx imbricate with scales rounded converging: equal o: receptacle somewhat villous or naked (Flowers mostly rounded) (vulgaris) divisions of leaves attenuate & toothed. perm.

Use. This as a fetid & antispasmodic, seems to be the weakest of the whole set, & justly omitted in the London ~~set~~ list; & tho retained in Edinburgh, is not known in our practice. This plant has led the learned Professor Murray to give us a valuable compilation on the subject of mora; but this does not seem to me to belong to this place, as it seems to me to be a general & not a particular remedy. Cullen's Mat. Med.

Class 19. Order 5.

Class 2. Order 1.

Veronica. V. Virginiana. Eng. Culver. Callistachia Virginiana.

Gen. Des. Calyx 4 parted: corol 1 cleft, lower division smaller. capsule 2 celled.

Use. A decoction of the leaves & flowers of Culver is said to operate as a cathar. ic. It is used in the jaundice. S. W. W.

Class 6. order 3. See page 85.

Sagittaria Plantago. Eng. Water Plantain or Thrum-Wort.

From the Liverpool Advertiser of Feb. 23d 1818. Effectual cure for the hydrophobia.

Of the long catalogue of those distempers with which it has pleased the Supreme Being to chasten or afflict humanity. the most violent, the most awful & detestable, is hydrophobia. This frightful malady, which bereaves of reason, distorts the frame, & humiliates the species by a change from human to brutal nature, whose paroxysms increasing with their succession in their torture render the miserable ~~being~~ sufferer too terrible for sight, almost too hideous for sympathy. This malady which hitherto no skill could controul, no force restrain, no medicine relieve, at length yields to a simple of the vegetable world — a quick but effectual antidote, the complete & general discovery of which, Providence in its wisdom, has reserved for the present time.

The following communication on this important subject, is made by a Paris correspondent: — A Russian peasant of Simbirsk, on the Volga possessed a celebrity in the cure of this worst of all human distempers. From the state of Russian simplicity, & the tardiness of communication in that empire, owing to the paucity of the means, this celebrity was for a length of years, exclusively confined to the province in which he lived. He was not the discoverer of the root that cured, but he was the sole depository of the secret. The renown of his extraordinary cures bursting at length, beyond the circle of his government, their number increased with his practice, & his celebrity along with them. Travelling to a distant village on the borders of the Saratowska, he tarried to refresh at an intervening hamlet, where a case of hydrophobia, in its awful stages overwhelmed the peasantry in grief. Unprepared for the event, shocked at the terrific spectacle before him the convulsive agonies of the afflicted being, he hesitated; it was only for a moment the conflict in his breast was ~~only~~ between humanity & interest — the feelings of

one however, soon overpowered all consideration of the other; he directed 65
search to be made for the Alisma; he described it; it was known - it was sought
for by all the inhabitants, each taking a different direction, & was immedi-
ately procured. Here the secret was divulged - a preparation was made, & the
antidote administered. On being intreated to tarry in the hamlet till morning,
the peasant replied that his presence was no longer necessary - that the man
was cured. Satisfied of the efficacy of the remedy, he resumed his habit, & taking
his leave resumed his journey.

And the distempered man was cured. He felt a temporary exhaustion, but
was at once freed from the torture of the malady. The circumstance thus
related quickly transpired. Communications on the subject reached to Moscow.
The physical world made enquiry & research. Throughout Russia, all Germany,
the reputed wonderful properties of the Alisma Plantago in the cure of hy-
drophobia induced experiments - successful experiments; they increased its fame;
in those entitled, is now established a perfect confidence in its unfailing efficacy.

From the London Literary Gazette of Saturday week, we take the subjoined
article on the same subject:- We must call the attention of the public & of the
faculty to the Alisma Plantago, of which a drawing is annexed, & which is at
present the subject of a general investigation upon the continent as a specific
for the cure of hydrophobia. Whether it possesses the qualities attributed to it in
Russia & Germany, or not, we have discharged our duty, in producing not only
a written description of it, & the assertions with regard to its healing powers,
but also a picture of the plant itself, for which we are indebted to a correspondent
of ours, from whose letter we subjoin.

To the Editor of the Literary Gazette. Sir, I send you for acceptance a drawing of the re-
puted valuable plant, Alisma Plantago. It grows, I may venture to say, in most parts
of Suffolk, certainly with us in great abundance, to the height of two feet above the
surface of ponds & ditches, bearing white flowers inclining more or less to a purplish
hue, from the middle of June to August. I have endeavoured to express the form
of the seed vessel so that the plant may be known after the flower has ceased to exist.
I am acquainted with no species of Alisma that at all resembles this in head
& therefore it must be known at a glance. For specific minutiae, you can re-
fer to Dr. Smith's "Flora Britannica" or to "Withering's English Botany." You will
receive information from either. I am &c.:- Lowing Port. ——

Hydrophobia. Recent accounts from Russia & Germany state that the Alisma Plantago, or water plantain, is now in those countries regarded as an infallible cure for hydrophobia. An experiment recently made by M. De Saint Do, ~~Curatier~~ Curate of Chevrolliers (in the department of the Lower Loire,) to confirm its virtues. About the 15th of last December, two young cows were bitten by a mad dog; one in particular was wounded in a severe way. The Alisma Plantago was immediately applied as a remedy. M. de Saint Do succeeded in administering to the cow which had been most severely bitten, a certain quantity of the dried root; the other, which could not be brought to swallow a very small dose, died of the hydrophobia a few days after. The former animal has not to this moment, manifested any symptoms of disease. — This experiment seems calculated to remove every doubt respecting the advantages arising from the use of the Alisma Plantago as a cure for hydrophobia among the human species. Montreal Herald.

Great praise, we think, is due to one of our contributors, for the real credit which he has repeatedly introduced to the notice of the public the discovery made by him respecting the bulb of a plant which is supposed to be a sure safeguard for the bite of a rabid animal, or dog. This plant is the bulbous root of the plant called by Linnæus, Allium Ursinum, or the Ramson, or Broad Garlic.

By a gracious ordination of Providence the antidote never has been far from the poison. It is the order of the Creator. The plant grows in every part of Europe, & especially in the Midland, Western & Eastern Counties, & we believe is to be found in such situations in almost every district in England. In England the season of flowering is in the month of July, & again in September. It may be gathered any time but it is best when it flowers.

In Germany & Russia, the extraordinary properties of the Alisma in the cure of the hydrophobia, seem to have been established on the principal world, & both the Physicians of our country, with whom we have conversed, & the public Journals, speak of it as a sovereign remedy. The Russian Counsellor of State, Leuchen, has lately published a work upon the subject, & has been a zealous advocate for its efficacy. He considers the author of nature, in the work which he has devoted

[illegible] Union must be [illegible]
the bowels or skin of beast & bites given to the patient at least has
[illegible] been found sufficient to effect a cure, even
hydrophobia is declared in the patient, whether it be man or animal.
[illegible] St. Petersburgh dated May 8th mentions an instance that
occurred in the vicinity of Cherson where a dog bit four individuals,
[illegible] animals. The authorities [illegible] the [illegible]
[illegible] of the dog bit, one more of the persons who were bitten
[illegible] the slightest symptoms of madness. This, we think is a decisive & satisfactory proof of the efficacy of the plant as a preventive of the effects of the bite of a mad dog. [illegible] from 10th [illegible] Vide Plate on the other side of the leaf

Plantago
great water Plantain
Rat. tail Plantain

Class 2d Order 1.

Veronica 2d. Beccabunga Anagallis Brooklime. Syn. Dr. Bot. Brook pimpernel. Water pimpernel. Water Kex. Water Speedwell.

Gen. Char. Corolla rotate, with a short tube, the segments unequal, the lowermost narrowest. Stamens shorter than the corolla. Capsule flat, emarginate, many seeded. Flowers blue, in lateral racemes. Stems creeping, rooting at the joints, succulent, glabrous. Leaves opposite, ovate, obtuse, crenate, sessile, the upper ones lanceolate, acute, entire. Flowers axillary, solitary, on long slender peduncles, shorter than the leaves. Seeds numerous, very minute, rough, reticulated. Root annual. Flowers June.

Obs. This plant was formerly esteemed a specific in scurvy & other cutaneous affections, & was used in many diseases; it is now valued only for its antiscorbutic virtues, as do most vegetables. It is preferred in that disease which has been called the hot scurvy. To have the advantage from it the juice ought to be used in large quantities & the green plant eaten as food. Cowslip. The leaves are good & succulent & are eaten in salads early in the spring. Cows, goats & horses eat it. It is refused by sheep. Mad. Dog. Poi.

Class 3. Order 2.

Triticum 5. Repens. Common Quaker Grass. Dog's tooth. Syn. Dog's tooth. Couch. Couch grass. Quitch grass. Quick grass. Common wheat.

Gen. Char. Calyx two valved, without awns, flower, short, smooth.

Spec. Char. Calyx four flowered, with awns, tapering to a point, edges flat. There are some varieties differing in the number of flowers of the calyx & awns. See Bot. Arr.

Use. The root is the grass root used in medicine. It is diuretic & attenuant. Pallas & Gmelin recommend the juice of these roots, drunk plentifully in obstructions of the viscera particularly in cases of scirrhous liver & jaundice. Little are frequently found in the winter, & they are soon dried when taken out to prepare for the spring. Does eat the leaves of this grass to excite vomiting. At Naples the roots are collected in large quantities & sold in the market for the food of horses. They have a sweet taste, something approaching to that of liquorice. When dried & made into meal they have been made into bread in times of scarcity. (Withering) It is a most troublesome weed in arable lands & can only be destroyed by fallowing in a dry summer. But Mr. Pitt observes, that though this is the most common weed of quitch in gardens, yet there is chiefly prevalent in arable lands, amongst the crops of grapes, as the wooden tar, yellow mullin & the dwarf elder. (Pitt. Rep.) Hogs eat young leaves & blade when fully grown. Cows, sheep, & goats eat them. Mad.

Class 4. Ord.

Syn. Gen. Q. Fullones. Eng. Teasel. Common Teasel

Gen. Des. Calyx common, many leaved, proper, superior, receptacle chaffy.

Spec. Des. ~~Calyx prickly~~ Leaves, ~~spines~~ ~~[illegible]~~ ~~[illegible]~~

Sp. Des. Common. Stem, branches, chaff, leaves, heads, & leaves hairy.

Use. This plant is cultivated for the use of clothiers, who employ the heads with the crooked seeds to raise the nap of woolen cloths. For this purpose they are fixed round the circumference of a large wheel which is made to turn round & the cloth is held against them. The plant flowers in the month of July & June, & the heads are gathered in the autumn. The leaves of this plant are a good stomachic, but they are not much known in such. Hill. —

Class 4. Ord.

Gelium. G. Borealis. Eng. Cross wort madder. Cross leaved yellow wort.

Gen. Des. Corolla one petal bell shaped short; seeds two, nearly globular, smooth.

Spec. Des. Leaves four in a whorl, egg shaped, smooth, three nerved; stem upright.

Flowers numerous, beautifully white but when dried turning to a dirty yellow. Blossoms July, Aug.

Use. The roots afford a good red dye for woolen cloth. —

Class 4. Ord. 1

Plantago. P. Major; P. Vulgaris. P. Latifolia vulgaris. Eng. Common great plantain. Eng. Lead.

Gen. Des. Blos. 4-cleft, permanent, bracts broken off. Seed 4. cell. 4 seeded. Stamens very long, caps 2 celled, lid round, inferior.

Spec. Des. Leaves spreading, smooth with 5 or 9 ribs. Stalk cylindrical, nearly the length of 9 to 18 inches high. Spike lined with short, rather woolly white hairs. Bracts ridiculous. very common. Blos. July. Aug.

Use. This plant was omitted in the London & retained in the Edinburgh Pharmacopoeias, in which the leaves are mentioned as the medicinal part of the plant. They are said to be aperient, alterative, diuretic, & diaphoretic. It was formerly reckoned among the most efficacious of vulnerary herbs, & by the ancients the green leaves are now commonly applied to cuts & other fresh wounds & contusions, sometimes made into an ointment. Towards they have been used in pulmonary complaints, spitting of blood, & in various fluxes, both flux & haemorrhagic. The dried, however, seem better adapted to relieve pul-

ondary diseases than the leaves, as they are extremely mucilaginous. They have been recommended for the cure of Indian intermittents, & from the experience of Bergius not unbelievedly. An oz or two of the expressed juice of a strong decoction of plantain may be given for a dose, in agreement with that quantity taken at the commencement of the fit. (Woodville) Plantain has been alleged to be a cure for the bite of a rattlesnake, probably with little foundation tho it is one of the principal ingredients in the remedy of the Negro Caesar for which he was rewarded by the Assembly of S. Carolina (Duncan Am. Ed. Bigelow) See my medical recipes Vol. 2d page 5. where will be found Caesar's recipe for the bite of Rattlesnakes — Sheep, goats & swine eat it, horses & cows refuse it.

Class 4. Ord. 1.

Cornus. C. sanguinea. C. florida. Am. Dog-wood tree. Poundtree. Poundwood. Pickwood. Pick timber. Gittentree. Female Dogwood. Female cornel. Red osier.

Gen. Char. Involucrum generally 4 leaved: petals 4. superior: drupa succulent, bacca 2. celled hard, solitary.

Spec. Char. Stem 4 or 5 feet high. dark brown. Branches straight. shoots lancet-shaped with strong nervs green on both sides. Left of flowers flattened, few divisions then subdivided: flowers white. Hedges & woods. Shrub. June.

Use. The berries of this tree have a styptic quality & are bitter to the taste. They are also to dye purple. The wood is white & very hard & smooth, fit for the turner & the flutes. The leaves change to a blood red in autumn. Flowers sheep goats eat it, cows & swine refuse it.

Class 4. Ord. 1.

Betula. B. Pumila. B. Nana. Eng. Dwarf birch tree.

Gen. Char. Male & female flowers separate on the same plant: calyx one leaf one or five cleft. Flowers 3 div. male cal. 3 flowered. female cal. 2. flowered. seeds 2 or 3.

Use. The leaves afford a fine yellow dye. The bark of the betula alba or common birch shrub supplies the Laplander in the summer when he lives in the mountains with food for the fire which he is obliged constantly to keep in his hut to defend him from the gnats & covered with the skins of rein-deer it forms his bed. (Linnaeus)

Orchis – Ang. Orchis. Spectabilis Class 19. Order 1.

Gen. Des. Calyx ringent 3 lf. the upper leaflets vaulted: lip dilated, spur long: anthers terminal adnate.

Spec. Des.

Class 3. Order 2

Genus. F. Fluitans. Ang. Float Fescue grass.

Gen. Des. Calyx two valved; spikelets oblong, roundish; husks tapering to a point terminating in an awn.

Spec. Des. Panicle branched upright very long, issuing from a long two edged sheath; spikelets sitting cylindrical awnless: blossom awnless mostly terminating: straw standing root at the joints: leaves floating flat on the water. In wet ditches & ponds common. Blos. June September

Use. The seeds though small are very sweet & nourishing. They are collected in many parts of Germany & Poland, & even brought to the table of the great under the name of manna seeds, as an agreeable & nourishing food, & are esteemed a delicacy in soup & gruels. on account of this nutritious quality & pratifying flavour. (Lightfoot Withering) When ground to meal they make bread very little inferior to that in common use of wheat. The bran separated in preparing the meal is given to horses for the worms but care should be taken that they are kept from water for some hours afterwards. Geese are very fond of the seed & will know how to seek them (Withg.) It is a good grass to sow in wet meadows of a deficient nourishing quality, & cattle are extremely fond of it, so much so that horses & mules would great wishes to get at it.

Class 5. Order

Genus. P. acaulis. P. Elatior. P. Veris. Ang. Primrose

Gen. Des. Bloss. tube cylindrical, mouth open, flat or from the tube. capsule cylindrical, many seeded, opening at the top with a lid.

Fol. Ov. Edge [illegible] toothed, [illegible] of the blossom flat; leaf-stalks when fully grown longer than the leaves. Woods hedges. thickets heaths. Flow. April, May. Root of the roots taken up in autumn, & dried, a drachm & a half, according to Geoffroy operates as a strong but safe emetic. Silkworms may be fed with the leaves of the primrose. Trans. Soc. of Arts. Rub & poultice it; horses & swine are fond of it.

Class 5. Order 1.

Syngenesia. P. Nigrolim. P. fragula. Alnus nigra ~~sipra at~~ baccifera. Eng. Black alder, black berry bearing alder. alder buckthorn. dwarf alder.

Gen. Char. Cal. tubular; scales protecting the stamen. Blos. 0. Seed a drupa.

Spec. Char. Without thorns. Flowers hermaphr. on fruitful. Blos. five-cleft. Leaves very entire, lanceolate-ovated. Berry four-seeded, sometimes two. Inner bark yellow; outer green; middle blood red. Woods wet hedges. Blos. April, May.

Use. The inner bark from a quarter to half an ounce, boiled in small beer, is a very powerful cathartic, & constipation of the bowels of cattle, it is a very certain purgative. The berries gathered before they are ripe dye wool of a green colour. The bark dyes yellow, & with the preparation of iron black. The wood of this shrub is powerful for charcoal and in the manufacture of gunpowder. The flowers are particularly grateful to bees. Goats devour the leaves voraciously, & sheep will eat them (Withering).

Class 5. Order 1.

Syngenesia. P. Odorata. Eng. Violet. Sweet violet.

Gen. Char. Cal. 5-leaved, adhering to the blossom above the base. Blos. 5 petal, irregular with a spur behind, either adhering, or [illegible] thrown back.

Spec. Char. Stemless. Leaves nearly heart-shaped, serrated, [illegible]. Leaf-stalks nearly smooth. Stigma shaved on the side. Flowers with or without petals, producing perfect seed. Blos. purple, blue, or white; very fragrant. Warm hedges, most warm banks in clay or rubble. Blos. March, April.

Use. The roots are used as an antient in various inflammatory diseases, & were allowed by the poets as a valentine. Trans. Soc. The recent flowers are now only admitted into the Materia Medica; they have an agreeable smell, & a mucilaginous bitter taste, & water they readily give out their virtue & flavour. Cold water dissolves a pint, taken in the quantity of a drachm or two in the form of infusion & syrup, & some other, which are employed

ral quality. The officinal preparation of this is a simple syrup, which
ung children dissolves the pectoral properties of an agreable purgative.
strongly diuretic, & useful in gravelly complaints & the root powdered
dose of a drachm proves both emetic & cathartic. (Withering) Both the
ers & seeds are said to be mild laxative. (Miller) The flowers, & also the
are cooling & emollient. (Lightfoot) The syrup of violets, which receives
color from the petals, is very useful in chemical experiments to detect an acid
an alkali. The former changing the blue colour to a red, & the latter to a
n. For this purpose the violet is cultivated in large quantities about Paris
) Fever. Slips of white paper, stained with the juice of the petals, & kept
the air & light assumes the blue purpose (Withering). The Turks make
violet sugar of the flowers, & this dissolved in water constitutes their favorite
or called Sorbet. - Lightfoot

Viola Tricolor

Garden Violet.
Heart-ease

n Tricolor. Ang. Pansies. Heart's ease. Three faces under a hood. Love in idleness. Kiss at the
gate. Call one to you. Herb Trinity. Heart's ease. Garden violet.
Desc. as above.
Dec. Mon. Stipulae wing cleft, terminating at the end of the leaf stalk; summit crown shape or
[illegible] Stamens [illegible] Flowers [illegible] half the size of the bosom. [illegible] variety of colour white, yellow, blue, purple, & some of these [illegible] Flowers in
May, [illegible] Sweet scent. [illegible] root of the grass [illegible]

7 176 — [illegible] morning. [illegible] vol. 2. p. 188.

By many of the old writers on Materia Medica [illegible] represented as a powerful [illegible] in chlorosis, [illegible] & [illegible] complaints, but by modern authorities it has been recommended chiefly as a remedy for the cutaneous [illegible]. In addition to the [illegible] recommendations here with the decoction is also to be formed into a poultice & applied to the parts. In this treatment it has been observed that the eruption during the first eight days increases & that the time when the medicine succeeds has been about [illegible] days. Persons of [illegible] habit on continuing the use of the plant a sufficient time, this would [illegible] the scales disappear, & the skin recover its natural purity. Haare administered the leaves in powder form & in large doses extending six or seven ounces & from the very [illegible] of its, recent, it seems well deserving of further trial. (Woodville)

bes. R. Rubrum. Eng. Currant. Red Currant.

on. Desc. Petals five. They are the stamens joined to the calyx. R. is seven. Berry smooth

cellid. many seeded.

ce. Desc. Without prickles. Branches smooth pendant. Flowers flatish. Leaves ego. and

cal. spreading. Stof. greenish white. Berries red, sometimes white. In woods in the northern

ts. Banks of the Tees. Old. May.

ies. The fruit of this plant is universally acceptable, either as nature presents it, or va-

ous preparations with the addition of sugar. Its medicinal qualities are similar to

ose of other subacid fruits which are esteemed to be moderately refrigerant and laxative.

ent. Hoffman & Boerhaave had great confidence in the efficacy of

ese fruits in obstinate visceral obstructions. They may be used with advantage to

lay thirst in most febrile complaints; to lessen an increased secretion of bile; or to

ect a putrid & scorbutic state of the fluids, especially in sanguine constitutions; in

se of a contrary kind, they are apt to occasion flatulency & indigestion. The juice of the

d currant is a most agreeable acid in punch; & at Paris mixed with sugar, it is a com-

on beverage, generally preferred to orgeat or lemonade. (Woodville). Red currant makes an

excellent wine, prepared in the following. To every quart of clear juice add three

arts of water & three pounds of sugar. Let it stand a year before bottling.—

ow sheep & goats eat the leaves; cows are not fond of them (Lind.

Ribes ~~Nigrum~~ Nigrum. Eng. Black currant. Quinsy berries.

m. Des. As above.

ce. Desc. Branches hairy. Leaves oblong, woolly; floral leaves woolly as long as the little

jet stalks. Berries granular. Cal. Upr. of a rich brown colour. Petals sometimes

ange into stamens. Wet hedges, river banks. May.

es. The berries have a very peculiar flavour which many reject, but despite

e the prejudice which they excite in common with other acrid fruits, they are de-

ively useful in sore throats especially those of the inflammatory kind; for this pur-

se the juice is boiled down to an extract, with the addition of a small quantity of

ed sugar. There is little doubt that, in cases of inflammatory angina, it may

ventually used to answer the same intention as gargles. They are said to pos-

s a diuretic power also to a considerable degree, but this seems to want confirmation.

e common black currant jelly in domestic use for the cure of sore throats, it may

ceived, loses much of its efficacy by having too great a proportion of sugar in its

mposition. These berries by some people are put into brandy, for the same purpose as

e cherries, & more commonly in Ireland into whiskey. The black leaves are commonly

common. Stems to 4 ft. to resemble Grass; the leaves are slim & in form to have a taste of green tea. & when young are thought to be manifestly aperient. The leaves are extremely [illegible] & have been recommended for their medicinal virtues which Bergius states to be emmenagogus, pellens, diuretica. The infusion of the green roots is hospital in fevers of the eruptive kind, & in the dysenteric fluxes of young cattle. Miller says that of this plant a wine may be made equal to that produced from the grape. Hoodie Hist. Mint. Goats & horses eat the leaves.

Class 5. Order 2.

Triandria. T. Mutata. The Wild oracle. Fat hen. Lambs quarters

Gen. Char. Blos. C. Flower some hermaphrodite some female, on the same plant: Her. hermaphrodite cal. five leaved. Seed, depressed, upright. Female cal. two leaved. Seed, compressed. Spec. Char. Stem herbaceous, upright or trailing. angular, furrowed. Calyx leaves of the female flower large, roundish, indented. Leaves triangular, rhomboid, indented, or entire. Varies much. Pubescent, dusty, Blos. July, Sept.

Class 5. Order 2

Dioecia. D. Scandens. Lupulus sive Humulus. Eng. Hop.

Gen. Char. Male & female flowers on different plants. Blos. C: male cal. five leaved. Female cal. one leaved, with a slanting opening, entire, bud one, with a leaf like calyx. Spec. Char. Stem climbing, leaves lobed, serrated. Flowers greenish yellow. In Hedges. Blos. July.

Use. The flowers of the female plant are the common Hops used in brewing ale & beer. The grows wild in the hedges but the value of the female flowers renders it worthy of being carefully cultivated: but cultivation occasions some varieties, but to the purpose of brewing they are commonly distinguished by the name of the Kentish or Worcestershire Hops. Hop yards might be preserved from the honey dew which is the excrement of a species of aphis & from the ottis moth, by being covered with tones. The assertion is not correct that the honey dew is the excretion of the aphis. It is an exudation of wax, sugar &c. &c. from the leaves of plants. P. & H. A decoction of the young shoots is esteemed a powerful Cholagogue. Lightfoot. A bag of Hops placed under the pillow is an excellent soporific. Dr. Addington. A decoction of the roots or from twenty to thirty grains of the extract is said to be a powerful diuretic. Mr. Marshall. The young shoots boiled & eaten as asparagus are esteemed a delicacy, they are sold under the name of hop tops.

with dyewood yellow. Strong cloth is made to last from the flax
ich for that purpose are gathered in Autumn (said) & water all the winter
in March after being boiled in a stove, dressed like flax. Horses, cows, goats
sheep & swine eat it. Pitkin

What is that electrical murmur like very distant thunder when hop poles are
shaken by the wind? Linnaeus in Pitkin's History quoting the Swedish
Journal. N. p. 212.

Class 5. Order 2.

Genus. 1. American E. Canadensis. 2. E. fulvestris. Obs. Common Elm.

a. Dec. Cal. 5 cleft. Bloss. Cap. 1 valved. Seed. 1 winged, compressed and
pitting.

b. Dec. Leaves doubly serrated, unequal at the base. Flowers almost sessile
crowded into a kind of corymbus. Bloss. Cal. beneath the half-bud. Bloss. accrescent
wrinkled. Hedges. Hedgerows. Blos. April.

c. The inner part of bark which is direct. Forms in the pharmacopoeias. Has a
bitter taste but no peculiar smell. It abounds with a shining gum. Recommended
in nephritic cases, & externally as a useful application to burns. This bark or
branches is more bitter than on the trunk. In extra bad weather taste more
acid. & contains but little mucilage. The complaints for which this medicine
has been used are chiefly those of the cutaneous kind, & tend to relax & leprosy.
Lysons mentions five cases of inveterate conditions successfully treated by
decoction of this bark prepared from 4 oz. to 1 lb. of bark & boiled in three
pints of water to one. Of this half a pint was given twice a day. But as
add nitre, & used frequent purgatives, it may be doubted whether the cure
should be solely ascribed to the elm bark. It was found efficacious by Dr.
Stone in the leprous illness of Lancaster; & in the lepra vulgaris in a
remarkable instance by Banau: also he proves the use of it in rheumatism, fla.
Ulcers, old ulcers, cancer, & scrofulous affection, time capitis, scurvy &c.
Dr. Pair (p. 88) in obstinate hemorrhoids for some months is necessary.
With this decoction. Drank freely has been known to carry off the water in dropsies.
The bark, kind of ground to powder, has been mixed with meal in Norway
make bread in times of scarcity. The inner bark boiled in water makes an excellent
gargle used in sore throats & fevers. (Hill) The flowers have a violet smell. The
wood being hard & tough, is much used to make axletrees, mill-wheels, boat keels,
coffins &c. This tree bears transplanting, loves an open situation, & flourishes

or cayenne, oil of tar, cut distinctly the prep under it. If grafted on the U. glabra it will throw out suckers, with which it is apt to overrun the ground. Horses, cows, goats, sheep & swine are fond of the leaves. (Hitchcock) & the tender leaves are devoured with avidity by silk worms. Tr. Soc. Arts ii. 157

Ulmus. U. Fulva. Thory. Slippery elm. Red elm. ♃

Gen. Char. as above.

Spec. Char. Branches scabrous, which, leaves ovato oblong, acuminate, nearly equal at the base, unequally serate, pubescent both sides very scabrous, and tomentose, crenate very dense & also wooly. Flowers sessile. Maybloom, or known by chemists the bark. Which is very mucilaginous. Hitchcock. Flor. April. Perennial.

Obs. The wood of slippery elm, on account of its many valuable properties deserves particular mention. It grows to the height of thirty feet with a pretty strong branch, divided into many branches & covered with a light colored rough bark. The leaves are oblong, ovate & sharp serrate, unequally doubly on their edges, unequal at the base, very rough on their upper surface & hairy underneath. The flowers are produced thick upon the branches before the leaves are expanded & are collected in a dense compressed, membranous, oval, inflated, both at the margins, containing one oval, compressed seed. The inner bark by infusion or gentle boiling in water affords a great quantity of insipid mucilaginous substance that is applicable to a variety of important uses. Dr. Mitchell says it has been beneficially administered in catarrhs, diarrhoea, & pleurisies; it has been applied in a poultice to tumors & as a ointment to chap & scalds. Am. Med. Bot.

The Indians of our revolutionary army & also those of more Western, who defeated the British in the year 1794, experienced the most happy effects from the application of poultices of the slippery elm bark to gunshot wounds, which were from rapidly a good suppuration, & to a disposition to heal. It was applied as the great remedy. When healing & mortification was evident, this bark bruised & boiled in water, has been the most surprising good effects. After repeated comparative experiments with the most efficacious applications, as milk & bread & linseed poultice, its superiority was established. In all the conditions where it has been equal benefit was derived from it. In opinion of the best surgeons the advantages are a chief one in pleurisy & catarrh, also in diarrhoea & dysentery. Many of the above facts are communicated relative to the virtues of the red elm & its medicinal properties by the editor of the Domestic Encyclopedia by Dr. Joseph Story of Rhode Island who has seen its effects in the Revolutionary & subsequent wars & also from a proof of the medicinal

[illegible] Not a [illegible] who forgot his very respectable friend when the mucilage [illegible]
[illegible] The editor of the above on Lond. and [illegible] has [illegible] proved to [illegible]
[illegible] the red elm tree, may be considered as a highly valuable addition to our [illegible]
medicinal exclusively American & we hope to be carefully searched for by the
medical gentlemen in the country, & procured from the indigenous area.

The inner bark of the slippery elm, or its mucilage has been found by experience
[illegible] to be singularly beneficial when applied to chilblains, extensive erup-
tions, & various kinds of sores & ulcers, & there is much reason to believe, that in
[illegible] in dysentery, consumption &c. may be attended with great advantage
[illegible] is generally [illegible]. Thus the article may be recommended to the patro-
nage & medical practitioners as a new & domestic article of our Materia
Medica, whose medicinal virtues will probably be found to merit a large share
of confidence. Thacher.

Class 5 Order 2.

[illegible] D. Carota. D. Sylvestris. D. Vulgaris. D. Polygamus. Stig. Corol. inf. D. corol.
not not.

[illegible] Dec. Obov. somewhat radiated. flowers hermaph. usefl. of the involucre divided, ver-
[illegible] membraneous toothed ridges.

[illegible] Dec. Stigma of seeds. L. lateral. hispid, leptalk fibres underneath umbel con-
[illegible] when in red. flowers white or reddish. Medium petiolus, & [illegible] in [illegible]
[illegible] — There are several varieties of the species in Not. Arrangement.

[illegible] The seed have a light aromatic smell & a warmed taste, they possess the not
[illegible] a considerable degree the aromatic qualities common to those of most of the um-
[illegible] from plant & hence they have long been deemed carminative & emmenagogue, but
[illegible] are chiefly esteemed for their diuretic powers & for their utility in calculous & other
complaints, in which an infusion of three ounces of the seed in a pint of water
has been recommended; or the seed may be fermented in small liquor, which receives
[illegible] There an agreeable flavour, resembling that of lemon peel. Carrots have been
[illegible] to children as a vermifuge. The expressed juice, or a decoction of the roots, has
[illegible] recommended in calculous complaints, & as a gargle for infants in children afflicted
with ulcerations of the mouth. & a poultice of scraped carrots has been found useful applied
to cancerous & fistulous sores, as well in mitigating the pain
[illegible] the smell. This plant in its cultivated state is the wild carrot [illegible]
[illegible] but it possesses large proportions of saccharine matter, affords considerable nourish-
ment but it is found to be difficult of digestion. Medicinally [illegible] the seeds are
[illegible] found to give immediate relief in cases of the gravel &c. [illegible] Pentroy [illegible]
[illegible] kinds of calculi & [illegible] attention, but [illegible] to recover [illegible]

1864

Iris Versicolor. – The common blue flag, or flower de luce, which is found in
transitions from Maine to Carolina is the Iris Versicolor of Millerian & Bigelow
& the Iris Virginica of Michaux. The root of this plant possesses active medici-
nal powers. It is considered the best in the southern parts of the United States. The name
of the plant, on the opposite page was executed by Mrs Harriet G. Williams, from a
cut in Dr Bigelow's Medical Botany. For an account of the use of this plant see
page 98 of this vol.

Class 5. Order 2.

Andrachne. A. Lanatum. H. Frondosum. Syn. Cor. perennis. Nuttall. Hoyland. Bot.
Hoyland.

Gen. character. Calyx. 0. Corolla. Petals entire and notched. Leaves compound
like moth encircled by a membranaceous border.

Sp. Char. Leaflets ternate. Stem erect. Flowers radiated. Leaf stalk at the base with a
broad membranaceous sheath at the edges. Stem leaves winged hairy: leaflets three
times jagged indented: odd one three cleft. Outer flowers radiated. The central one
sessile. Flowers white. Seeds with three ridges on each side. Ridges smooth. Pasture fields.

Use. In Poland & Lithuania the Poor prepare a liquor from the leaves & seeds of
this plant which after undergoing a fermentation is used as a beverage like
the stalks, yield, are eaten by the Kamchatdales. The Persians prepare from
this plant a catsup which they esteem a great delicacy; they pick off the leaf
stalks of the root leaves, peel them & hang them in the sun to dry a little. They
then tie them up in little bundles & hang them up again till they become yellow.
This state they are put into bags & usually obtained. The sugar forms upon
the surface of them, this is carefully shaken off & served as a treat to the guests.
Chemists distill an ardent spirit from it. Jacobi. The pulp of the
stalks and seeds the leaves are a favorite food of rabbits, hogs, & sheep: cows goats &
horses eat them. Mitchell. This plant has been found useful in epilepsy. H. B.

Class 5. Order 2.

Angelica. A. Triquinata. Syn. Ap. Ed. Angelica.

Gen. & Spec. Char. See Eaton's Manual of Botany.

It is a very acrid bitter & aromatic, possessing all the qualities of the tribe.
It is a native of Canada. Bitter & aromatic properties. Stem a hollow cylinder. Stem leaves
long. Leaves petiolate & sessile. Flowers in umbels. H. B.

Medical use of Angelica has made it an object of cultivation in the gardens for more than two centuries. The stalks have seed, but more particularly the root has a fragrant aromatic smell & a bitterish pungent taste: on being chewed they are at first sweet, afterwards acrid & leave a glowing heat in the mouth. The fresh root wounded early in the spring yields from the inner part of the bark an unctuous yellowish balsamic juice, which partly concretes, retains its fragrance & proves an elegant aromatic gummy resin. Lewis, Linnaeus says, the Lapland women entertain a very high opinion of the virtues of this plant as food & medicine, which is natural, as few aromatic plants inhabit the polar region. Bergius thus enumerates its virtues: Alexiteria. Stomachica. Sudorifica. Carminativa. & it has been recommended in fevers & diseases, yet though it must be allowed to possess aromatic & what are called carminative powers it is in these qualities surpassed by other simples, & therefore seldom employed in the present practice. Woodville. It is commonly used for a confection or sweetmeats, & employed in some distilled waters.

Class 5. Order 2.

Genus 1. Linnaeus. Sex. Syst. Umbelliferae. Any creeping water parsnip or chervil.

Use. The efficacy of this plant is thus attested by Dr. Withering: A young lady of 4 years old was cured of an obstinate schirrous cancer by taking three large spoonfuls of the juice twice a day. Dr. W. has repeatedly found it a valuable remedy in scirrhous complaints with the greatest advantage: it is not necessary, as well as ~~not~~ children take it readily if mixed with milk. In the cancer given by them it effected cure either the head or stomach, or the bowels. Withering. It is called from its effects on the Sect. Red. of the medical college, in the character of an antiscorbutic and tends the Sect. Red. of the medical college, in the character of an antiscorbutic and tends the Sect. Red. of the medical college, in the character of an antiscorbutic and tends

[illegible] usually ascribed to the coriander, & Dr. Withering says the Umbelliferous [illegible]
[illegible] considered as suspicious, if not deleterious, he has known serious effects
[illegible] taken at once without any remarkable effect. These seeds, like those of most
the umbelliferous plants, possess a stomachic & carminative power, but they
[illegible] principally of use, according to Dr. Cullen, as correctors of the bitter in
[illegible] & the fermentation of senna, nothing so powerfully corrects disagree-
[illegible] the odour & taste of [illegible] equally efficacious in obviating the griping that
[illegible] is very ready to produce. The seeds are [illegible] with sugar & sold by con-
fectioners, under the name of coriander comfits.

#

Class 5. Ord. 2.

Laurel Hydrus C. Clayton. C. Lyrata. Myrtus. Amy. Wild Cherry. Cow and
[illegible]. Mahly. Cow and Cherry. Poison ivy. Bluff. Ray. June.

[illegible] of the Kingdom in times of scarcity the platicest a [illegible]
[illegible] Cattle. The roots have sometimes been eaten as harmless but they have been
[illegible] poisonous. The umbels afford an indifferent yellow dye; the leaves & stems a
[illegible] green. Its presence indicates a fruitful soil. Neither horses, sheep, goats
[illegible] are fond of it, rabbits eat it greedily, & cows are very fond of it, so much
that when an often habituated Dolly, a heifer is overcome with it, cows
[illegible] it to eat it up. (Withe.)

#

Class 5. Ord. 2.

Lauraceae. I. Obtusifolium. Sassafras vulgaris. Magnolia tripetala. Amy. Cam-
[illegible]. Bluff. June.

The root has a fragrant smell, & a bitterish fragrant taste, leaving for some time
a warmth in the mouth. This plant was formerly with some reason, thought
[illegible] of singular efficacy, & was preferred to most of the other aromatics for its alexi-
pharmic & sudorific powers. In some diseases it was employed with so much success
[illegible] distinguished by the name "divine remedium". (Hoffman.) At present the
[illegible] root is very considered merely as an aromatic, is superseded by means of that
[illegible] superior character, half a drachm of the root in substance, & one drachm
[illegible] infusion, is the dose directed. (Cullen.) The root is warm & aromatic, it is
[illegible] a diuretic, & is [illegible] recommended in dropsies & [illegible] of the
[illegible] & in infusion of it in wine is said to have been [illegible]

the back. (Dr. Wilson) Mem. Neard it carries a common flor of relieve
ing a tumor not like vessels mention to the flower & fragrant the seeds
Alexiteric Withers. Wilt. It should be by infusion cruste, & a strong infusion
made in cow milk (Wilt)

Class 5. Ord. 2.

Pastinaca. P. Sativa. Fr. Wild Parsnip. The garden parsnip is a variety altered
only by culture. Wilt. June July.

Use. The roots of this plant are mostly thick & fleshy, & when when imbued by
garden culture, are an excellent vegetable for the table, & much used by those who
kitchen gardens. They are highly nutritious. In the north of Eu-
rope they are brewed into a kind of malt liquor with hops & fermented with yeast. The liquor
thus obtained is agreeable. The seeds contain an essential oil, & will flow from
intermittent fevers. Hogs are fond of the roots, & quickly grow fat upon them (Wilt)

Class 5. Ord. 2

Smyrnium. S. Olusatrum. S. Perfoliatum. & Hirsutum. Alg. Alexanders.
Common Alexanders. Biby. May. June.

Use. Alexanders was formerly cultivated in our gardens, but it is now little, if
with celery, & unequally neglected. It is both & good by eaten by sailors, who rather
on their return from long voyages to land on the northwest coast of the U. S. of America
sea, where it grows in profusion. (Pennant)

Class 5. Ord 2.

Anethum. A. Foeniculum. Foeniculum Dulce. Ang. Fennel. Fennel Dill. Dill
Biby. Aug.

Use. The plant is highly esteemed by the ancients for promoting the secretion of
milk, an opinion which the experience of some modern authors has lately tended to con-
firm. The seeds, though ranked among the greatest hot seeds, are supposed to be stomachic
& carminative, & are inferior in their effects to those of dill, anise & caraway. The
seeds used in medicine are usually imported from more southern countries; they
give out their virtues very imperfectly in infusion but by expression yield
plenty of an essential oil which is carminative, diuretic, but not
heating (Wilt). The root Pliny says, may be called a diuretic medicine or
a cure. It was thought by Bergius to possess all the virtues of fennel, but it is now
wholly disregarded as a medicine; to the taste it is sweet, with very little
aromatic bitterness, & it is said to be pectoral & diuretic. A simple water

ates is directed to be obtained from the [illegible] (Woodville) in
are boiled are used in place for [illegible] all kinds of [illegible] fish & they are eaten
w with pickled fish. The tender buds are used in salads. In Italy the
[illegible] are described as a winter salad. (Mitt.)

Class 5. Bitters

ivum. C. Carui. Cumin. [illegible] Carum. [illegible] Carum [illegible] Nat. Ord. [illegible]
[illegible] seeds are said to have a pleasant spicy smell & a warm aromatic taste, & are on
account used for various oeconomical purposes. They are esteemed to be carminative, [illegible]
stomachic, & are recommended in dyspepsia, flatulence & other symptoms. [illegible]
[illegible] complaints. They are [illegible] reputed to be diuretic & to promote the
[illegible] of milk; they are so frequently employed [illegible] formerly (Woodville) the seeds
[illegible] in cakes, & often put into bread, especially at Christmas time. [illegible]
[illegible] they are sold by confectioners, & they are often distilled along with [illegible]
[illegible] for the sake of the flavour & heat which they impart. These seeds were for
[illegible] recommended by Dioscorides to [illegible] girls & in more modern day the
[illegible] in those cases is not forgotten. They are as despicable remedy in [illegible]
[illegible] above with an essential oil which is antispasmodic & carminative (Pereira)
[illegible] Pliny says that the roots of this plant when young are a better esculent than
[illegible] The tender leaves may be boiled with pot herbs. Sheep, goats & mules
[illegible] it: horses & goats are not fond of it. Pliny

Class 5. Order 2

[illegible] Grandiflorum. P. Selinum. Wild Parsnip. Common Celery. Nat. Ord. [illegible]
[illegible] Celery, Wild. Apio. Apium. Smallage. Parsley.
[illegible] The root in its wild state, when it grows near water, is fetid, acrid & noxious,
[illegible] when cultivated in the ground, it loses this property. The root with the lower
[illegible] of the leaf stalk & the whole plant being considered as the parts used in
[illegible] or food, in the state of cultivation in the garden it is known by
[illegible] of celery. It is said to be useful to those subject to nervous complaints
[illegible] it is certainly a good antiscorbutic. The seeds yield an essential oil. Sheep &
[illegible] cattle are not fond of it. Horses refuse it. Pliny.
[illegible] Petroselinum. P. Hortense. P. Sativum. Nat. Common Parsley. Garden
[illegible] Nat. Ord. [illegible]
This plant is a native of Sardinia, but it has been so long cultivated in our gardens

Cinn. — in India [illegible] are [illegible] appears to be more familiar to us than
most of our indigenous plants. Both the roots & leaves are directed by the London College
for medicinal use; the former have a pungent taste accompanied with a slight
bitterness or flavour resembling that of a carrot; they are said to be aperient & diu-
retic & have been employed in a poultice to relieve nephritic pain & obstructions
of urine. The leaves are in taste warmer & more aromatic than any other part of the
plant & also manifest a considerable bitterness; like those of many other umbel-
liferous plants they possess a share of aromatic & carminative power, but the bit-
ter is inconsiderable & they are now but seldom employed. They have been indeed
really with advantage for destroying certain insects in children. The bruised
leaves have been successfully employed as a dressing for ulcers in various kinds
of tumours, & it is by ~~some~~ that this application has succeeded in removing
tumors when iodine & mercury had failed. The parsley is in so common use & so
table, it is remarkable that facts have been adduced that in some constitutions
it occasions syncope, or at least in those subject to them, aggravates the fit:
it has been supposed also to produce inflammation in the eyes. (Woodville)

Class 5. Order 8.

Viburnum. V. Lantanoides. Trag. Tangelys. Hobble bush. Wayfaring Tree. Plain leaf
oneleaf. Tree. Blos. May.

Use. The berries are bitter & astringent. The bark of the root is employed for the na-
ture of bird-lime. (Withering)

Lonicera. L. Canadensis. L. Nigra. L. Virginiana. L. Sorbifolia. Trag. Black berried Ele-
elder. Common black elder. Blos. Apr. May. N.B. Parsley leaved elder is only a variety
of this genus.

Use. The whole plant has an unpleasant narcotic smell & some author have ex-
ported it as a cheap substitute for the shade of elder. The inner bark, flowers, & berries
are the parts used in medicine & admitted into the pharmacopeias. The former
strongly cathartic & on this account was much used by Sydenham & Boerhaave
who have recommended it as an effectual hydragogue. Sydenham directs them be-
fore of it to be boiled in a quart of milk & water till only a pint remains
of which one half is to be taken night & morning, & repeated for several
days if operation ceased & diarrhoea, & the evacuations lessened. Its effica-
cious Boerhaave gave the expressed juice in doses from a dram to half an ounce

Smelling dose it is said to be an useful expectorant & diaphoretic in cases of
bl disorder. The flowers have an agreeable flavour in infusion, when fresh they are
the laxative & bland. They promote partially & articular secretion, & are service
ble in congestion & conditions of the bowels. Externally they are used in fomentations &
the form of an ointment. The berries in dark are diuretic & the expression yield
ing purple juice which is a useful aperient & resolvent in recent colds & nervous
moral disorders, gently loosening the belly & promoting urine & perspiration. (Pharm
Lexicon. Ed.) This juice made into a rob is a safe & useful aperient. (Lightfoot)
In some parts of Scotland an acrid purgative is in use called from diuretic &
an eminent service in glandular obstructions & dropsies. Sheep which have the
rot be placed in a situation where they can get at the bark & the young shoots
they will quickly cure themselves. The berries like the bark are purgative but more mild
ly. They are an ingredient in several cooling ointments. A decoction of the flowers taken
internally is said to promote expectoration in phthisis. Externally they are used in foma
tions to ease pain & abate inflammation. They are used formerly to give flavour
to vinegar. The inner bark is an ingredient in the Elder dye. The berries are poisonous to
dogs & the flowers to snakes & frogs. If tares, cabbages, corn or fruit trees
infected with blight from a variety of ~~insects~~ insects be whipped with the green boughs
or leaves of elder, the insects will not attack them. (Phil. Tr. v. 62. p. 369.)
The leaves bruised are sometimes applied outwardly in a cataplasm in erysipelas
inflammations & are said to be very relaxing. (Lightfoot) The bark is hard, tough & yel
low. It is commonly made into plums for butchers tips for angling rods & gun
screwing outs: it answers well for turning in the lathe. The pith being excessively
light is cut into balls and in electrical experiments. (Hill) Sheep eat horses
eat or fine it. Cows, Other cows are fond of it.

Class 5. Order 5

Gen. a. Nicotianum a. Tobacco a. Nicotiana Jussieu. Class. Pent. Mon. Jussieu

This valuable plant came originally from those parts of Egypt that are over-
the inundation of the Nile; & it saw there to come with a strong tem to the height
of feet, but it is now a native of Britain & its utility in arts, manufactures &
have rendered the cultivation of it an object of national encouragement.
seeds have an unctuous mucilaginous smell & yield by expression a
quantity of oil, which when carefully drawn, without the application of

Linseed ~~oil~~ has no particular smell or flavour & is an excellent pectoral. Boiled in water they afford a large proportion of thin flavourless mucilage; infusions & decoctions of them, like other vegetable mucilages are used as emollients or demulcents in hoarseness, cough & pulmonic symptoms which frequently prevail in catarrhal complaints. They are also recommended in nephritic pain & strangury: for these purposes a spoonful of the seeds unbruised is said to be sufficient for a quart of water. The seed are also much used externally in emollient & maturating cataplasms. They make an easy & useful poultice in cases of external inflammation. The expressed oil is held to be of a more healing & balsamic nature than other oils of this class, & has therefore been very generally employed in pulmonary complaints, also in colics & constipation of the bowels: in some of its properties it differs considerably from most other oils of this kind; not congealing in winter, nor forming in a solid soap with alkaline salts, & acting more powerfully than any other as a menstruum on sulphurous bodies. When heat is applied during the expression it gets a yellowish colour & peculiar smell. & in this state it is used by painters & varnishers. Linseed oil seems to afford but little nourishment & when taken as food has been found to embrace the stomach & produce vertigo, tremors & death as noticed by Celsus, & have since been confirmed by the experience of the reputed cause of scarcity in Ireland, where boiled linseed was used as food, & seems a remarkable distortion of the hypochondria, swelling of the face, & often death, which in some instances proved fatal. But the pericarp part which remains after the oil is expressed called oil cake is now to come with advantage, & the common fattening for it. The longitudinal fibres of the bark separated by maceration in water from the glutinous matter which connects them together, dried & combed are spun & manufactured into linen of this kind which is now to be seen in Dublin & London. The water in which flax has been steeped is poisonous to cattle, & therefore the practice of steeping it in any stream of running water or common pond is prohibited by statute. See 33 Hen. 8. chap. 17. – Woodville. Pitman.

Class 6. Order 1.

Genus 1. Tuberaceae. Dry. Green.

Gen. The ~~[illegible]~~ [illegible] is a matter of doubt, is used in medicine. It is an astringent in diarrhoea, as a stimulant in [illegible] as a febrifuge in preventing the recurrence of intermittents, when [illegible] the disease: as an anthelmintic a powerful litrontriptic, or antispasmodic in certain cases of [illegible]. Worldwide. See Hoffman. Sydenham &c. &c. &c.

Class 6. Order 1.

Genus 1. Colchicum. Colchicum Autumnale. Fr. Colchicum. Eng. Meadow Saffron. Bot. April. Moist places sandy; wet woods.

Gen. The bulbous roots of this whole genus are nutritious & wholesome & those of the species have been employed for food in times of scarcity of provisions — Horses, sheep & goats eat it; Kine are not fond of it: cows refuse it. (Withering)

Class 6 Order 1.

Genus 2. Maianthemum. C. Maianthemum. Fr. Lily of the valley. May Lily. Lily of Solomon: Lily of the valley. Bot. March. April. May.

Gen. The flowers, tho' highly fragrant, have when dried a narcotic scent. Reduced to odor they excite sneezing. An extract has been made from the flowers or from the root & stalk of the bitterness as well as of the purgative properties of aloes: the dose is from 5 to thirty grains — By the action of heat a beautiful & durable green color may be prepared from the leaves. Sheep & goats eat it; cows, cows refuse it. (Withering) —

Class 6. Order 1.

Genus 3. Asparagus. C. Asparagus. Fr. Giant Asparagus. Common Asparagus. Bot. [illegible] June.

Gen. The roots of this genus have been used for making beds & its young shoots are eaten by the Turks as a vegetable. In this genus the root used in medicine is generally referred to, with, on the Materia Medica. (Withering) The root prepared the following manner is very efficacious in the dropsy. Take one pound of the fresh roots or one pound of a handful of the dried & boil in two pints of water to one; add a blade or two of mace. Take two tablespoonfuls of the syrup twice a day —

Class 6. Order 1

Flowers in clusters. Fig. Myrtle flag. Sweet smelling flag or calamus. Lo myrtle flag grows. Rank growth with a muddy bottom. Leaves sword like. The root in its dried state has a moderately strong aromatic smell, & a warm pungent & bitter taste. Heat is found to extract the bitter, & rectified spirit the aromatic matter. Root not rating like spice. This root manifesting to the taste considerable pungency & a moderate degree of bitterness, has been therefore deemed a warm stomachic, & was formerly much used here in combination with the more simple bitters, which by this addition were rendered more grateful & carminative. It has been recommended in vertigo proceeding from a vitiated state of the stomach & in intermittent fevers, which are said to have been cured by this root after the bark had failed. It is said to be efficacious in colic & haemorrhagic complaints, but to this little credit will be given, & still less to its supposed aphrodisiac powers. (Woodville.) This plant grows wild in most places in Japan, where it is considered on account of its strong aromatic taste to be a medicine of great power. But they do not know there its true properties. (Mr Pinckney.) It is thought to be the aromatic plant which is a native of the northern climates of China. The root powder might supply the place of foreign spice; it has been given when the Peruvian bark has failed. The flavor of the root is greatly inferior to Chinese. The root is commonly imported from the Levant, but those of our own growth are fully as good. The Turks candy the roots, & think they are a preventative against contagion. Neither horses, cows, goats, sheep or hogs will eat it. (Mr

Class 6. Order 1

Robert. B. Calyx. C. Dunetorum. Arg. Nabary. Pipperidge bushes. Blackberry. The berries are gratefully acid & grateful, cooling, are said to be of great in bilious fevers, & in all cases where heat, acrimony & putridity of the humors are the symptoms, & to replace them in putrid fevers & fluxes with great success. Dr Rush relates that he was called to a obstinate fever accompanied with a bilious diarrhoea, & many days being unsuccessfully to the Egyptian herb, ordered the fruit for a day & night in tartar, & a quantity of water, & succeeded in the cure of a little female child. The liquor strained & sweetened was used as a common drink. There begin to be not seen, however, to be of any benefit in putrid fevers. (Woodville.) The berries are ripe about the middle of August.

[illegible] often been found serviceable in the jaundice. The fresh root
[illegible] good to prevent the worm fever, for which it is generally made use of
[illegible] The infusion of the bark in white wine is a popular remedy
[illegible] The flowers though offensive to the smell when recent afford a
[illegible] which are not unpleasant. The berries are so acid that birds will
not eat them. But boiled with sugar they form a most agreeable rob or jelly. The
[illegible] and a very innocuous wine in Hesse Darmstadt. The root boiled in
[illegible] is used in Poland, and the bark of the root being dried and beaten
[illegible] the inner bark of the stem, with the assistance of lime, dyes linen a fine
blue. This shrub should never be permitted to grow in our lands, for the ease of
heat that grows near it never fails to be injurious in this respect, nor does it
seem to extend its fair as three hundred or four hundred yards across the field.
This truth stated by Mr. Bonnet (see Eng. Bot. p. 47) Dr. Withering has
experienced the truth (Withg.)

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Hydrocapnum. [illegible] Bot.] Capnum officinale. R. Fumitory. Arg. Weed
[illegible] Yellow Crake. Wh. July. August.

The root, which is the part directed for medicinal use, has a strong acrid
taste, strikes a blue color with solution of ferrum vitriolatum. It is strongly
diuretic & has been much employed both externally & internally for the cure of
[illegible]: externally in the form of frequent lotions in eruptive diseases. It is
recommended also in various other cutaneous affections, & in cases of
[illegible]. The herb, which yields considerable acidity, was used to promote
[illegible] & has been held to strengthen coldness. Many of this genus
are formally officinal herbs but the species now been taken. The [illegible] office
[illegible] is still retained in the Materia Medica of the Edinburgh college, the
[illegible] virtues ascribed to it are now held in doubt. (Woolly) This cryptadia
[illegible] efficacy, both externally & internally, as a wash for herpetic eruptions,
& internally for some species of scurvy, in rheumatic pains & chronic
[illegible] diseases, owing to obstructed viscera it is said to be useful. The root has
[illegible] at this time, but soon changes to a bitterish taste on being exposed to the air.
Powder root is one of the best things for a diuretic that can be used. Murray

Vaccinium V. Myrtillus. Lin. Sp. Pl. 5 Lin. Sp. Pl. Ed. 1. The whortleberry. Bilberry. Dry heaths, common in Eng. Pl. Brit. Ed. 2.

Use. The berries of this species are acid & not very grateful, but they are eaten by the inhabitants of Wales & by the common people, & they are sent in large quantities from St. Helens to Liverpool for the use of pickling. Pies are also made into tarts, rob, jelly &c. Goats eat the leaves. Cows, horses & sheep refuse them. (Withg.)

Class 8. Order 2.

Polyandria. Digynia. Lin. Sp. Pl. Aspen. Aspen tree. Populus. Poplar. Lin. Sp. Pl. Ed. 1. Pl. Brit. Ed. 2.

Use. The wood is extremely light, white, & smooth, easily cut & shaved. The bark of the young tree is made into torches. The bark of the tree is the principal food of beavers. It will grow in every situation & in all soils, but whether dry, it overcomes the shade, it leaves dry by the grass, & the numerous shoots of its roots spread under the surface of the earth that nothing else can grow there. It is easily transplanted. Neither goats eat its leaves nor sheep refuse it. (Withg.)

Class 8. Order 4.

Polyandria. Polygynia. Lin. Sp. Pl. Water Pepper. Smartweed. Lady's Thumb. Bistorta. Polygonum. Lin. Sp. Pl. Ed. 1. Pl. Brit. Ed. 2.

Use. The whole plant has an acid burning taste. It cures little sores in the mouth. The ashes of this plant, mixed with soap, are a common ingredient for the stone in the bladder. But it may be questioned whether this effect be not owing to the acrimonious preparations of the urine by the alkali. It remains in solution at the bottom of the urine for two or three months, & has been effected in some refractory cases. It dyes wool yellow. The cattle refuse it. (Withg.)

Class 8. Order 3.

Polyandria. Polygynia. Lin. Sp. Pl. Knot grass. Snake weed. Bear wind. Polygonum. Lin. Sp. Pl. Ed. 1. Pl. Brit. Ed. 2.

Use. The whole is useful for many purposes in dyeing. The buckwheat are eaten by great numbers of wild birds, especially pigeons, feed upon them. (Withering.) The yellow lice harbour on the leaves of this plant. (Linnaeus.)

Syn. Drum. 1st Composition of the Jesuits Bark. Common or Quinine. Eng. Peruvian Medicinal. Cortex Cinchonae. Cortex Peruvianus. Cortex Jesuitarum. Cortex Febrifugus. Cortex Regius. Cortex Sacer. Cortex Cinchonae officinalis. Cortex Cinchonae officinalis. Cortex Cinchonae officinalis.

Obs. The Barks are perfectly alike for the purpose of the best medicines of the preceding genus, but they are produced in greater quantity, & might be bought better. They are exported at Lima from Chorrillos (Lim.) & Chorrillos (Lim.)

Class & Order.

Genus 2. Rubia. 2. Digynia. 2. Natural Order Ord. Rubiaceae. Rubiaceae. Rubiaceae.

Obs. The bark is the part directed for medicinal use, (by the ancient Indian practitioners) to manifest as the taste & strong astringency accompanied with a moderate bitterness; it possesses an superiority in tonic & febrifugal properties, & is the astringent it has been recommended in lues & for retaining hemorrhages, chronic fluxes & other immediate evacuations. A decoction of the bark is recommended in a gangrene & putrefaction or when in incipient state & other diseases as frequently and the decoction with wine & light infusion of the inner membrane of the pericarp & in hot fevers & spasmodic conditions, which some are liable on the least approach to cold. In many cases the decoction each effectually has proved to prevent the disease, & in some instances it effected a portion of time but the bad effects of the drug, & the relapse to prove so effectual. If it is not the bark has been produced but by efficacious transfer of the bone or the division are often difficult, though there is no doubt that oak bark may have the power of some intermittents. A. Cullen "gave it in powder, half a drachm every two or three hours during the intermission of a fever, & both by itself & powder the chamomile flowers, prevented the return of the paroxysm of intermittents." Galls, which are found upon the leaves of the tree are the most powerful of the vegetable astringents, forming a deep black when mixed with a solution of ferrous sulphate & therefore preferred to every other substance for the purpose of making ink. As a medicine they are to be considered as a little less than the same dilutions as in bark of the tree, & by forming a protective layer of astringent to the mucous membrane of the intestinal canal are indicated in a fine powder made into a fine powder & made into an ointment they have been found of great service in hemorrhoidal affection. Decoction of the powdered medicinal vegetable bark in boiling water, & the decoction of different kinds of brown are made with such results in many instances (in bowels) the bark or a hot water & in boiling, as a substitute in fevers, the bark is usually used to take the infusion of it, with a small quantity of coffee or tea by the common people to the exclusion of black tea, the whole is not bitter to taste. The bark is used in powder, & in the form of infusion & all other forms of medicine, is indicated to clear the mucous membrane, but the separate effects are not so marked & difficult. Flow. cor. [illegible] Mucous & the fetid mucous. (Pharm.)

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Class 10. Order 2.

Synonyma. S. Officinalis. S. Salsaparilla. Lychnis Salsaparilla dicta. Smilax Sarsaparilla. Sarsaparilla. Bl. July. August.

Sec. It mitigates effects which would be mischievous if taken. Pr. Lines for which it is recommended. Pt. Pt. just the medicine most for those in which its use may be most available. A decoction of Sarsaparilla, seems to have had the principal effect when they have been administered to the [illegible] particularly in [illegible] cases. Begins thus: "Human [illegible] to several writers, in most instances of [illegible] and to a tension of the plant without the [illegible] of mercury. Dr. Lewis [illegible] Hall's attendance [illegible] officer in [illegible] the viscid bitter. The whole plant is bitter. A decoction of it applied outwardly on the skin. The Spanish use it instead of Sarsaparilla in venereal complaint. A tea of [illegible] prescribed by [illegible] daily half an ounce of the infusion juice. By the use of the extract or a decoction of the leaves and roots. A Spanish case of old venereal complaint and a clear pain & emaciation. Dr. Lewis says the use of mercury. Brandes says [illegible] that it raises a lather like soap, which adds green spots out of [illegible] the gum. And be immediately made for a [illegible] other lather. & Berzelius [illegible] has all the effects of soap itself, but that the saponaceous quality is not superior to that of common soap.

Class 10 Order 5.

Synon. S. Tuberosum. Eng. Potato. Dr. Pine. Dr. Pine. Stem cap. Only branched. Sec. A decoction of the leaves in milk is a powerful diuretic. It has the same [illegible] except in the pulse. Cow. goats, sheep eat it, horse refuse it. Pine.

Class 10. Order 5.

Synonyma. S. Tectorum. Eng. Houseleek. Wm. Eng.

Sec. A person of [illegible] chalets has published in a book [illegible] a single part. It is known that the dose recommended has been successfully used in [illegible] coma. This person petitioned [illegible] on day attacked with a violent pain in [illegible] that he [illegible] a fit of the gout. He applied the horse leek, throughout the [illegible] covering him [illegible] entire [illegible] the enchantment. He continued the [illegible] of his bowels. He [illegible] to the gout. The [illegible] has [illegible] and his [illegible]. It calms pain. He does not [illegible] the cure. This [illegible] disorder, with [illegible] so many [illegible]

[illegible] of the gentlemen of the faculty to examine whether [illegible] has not proved him the honor of helping of making a [illegible] which may prove useful to the world.

The horse [illegible] is considered after having the thin outside taken off from [illegible] 1818) The horse lobby [illegible] is considered to be the same with the [illegible] described in the preceding article.

Class 11. Order 2.

[illegible] Cultivated. C. Bitter. Sp. Non bean tree. Has been tree. Stone is horn [illegible] Bud. Ridge. Blossom May.

Use. The wood is used in Scandinavia to dye yellow. The wood burns like a candle, it is very white, very tough, harder than hickory, capable of supporting a great weight; it is useful in turning for many implements of husbandry; it makes hoops for milk chairs, even superior to yew. Cattle eat the leaves but not the bark; sheep will not flourish in its shade. It loves a poor stiff soil on the side of hills; it is easily transplanted & bears lopping.

Class 13. Order 11.

Nelumbo. Lutea. Nymphaea lutea. Sp. Yellow water lily. Nelumbo. Indian bean. Blossoms July.

Use. The infusion of one pound of the root to one gallon of water, taken in the morning for a week, cures the [illegible] of a wet night & morning cured a leprous eruption on the skin. Has a tendency to make the fever small & [illegible]; (Prop.) The root mixed with the [illegible] dusting [illegible] & [illegible] & [illegible] &

I have the expectation [illegible] that the [illegible] [illegible] [illegible]

Use. The root of this is hot & acrid, readily & safely raising a blister without causing much pain or the like inflammation. It is very acid & blisters the skin easily & rapidly. The acrimony of this & many species of R. is so great that on being applied to the skin they excite violent redness & inflammation & even produce blisters & mortification & ulceration of the part. If given they corrode the tongue, & pass into the stomach, bring on all the deleterious effects of an acrid poison. It is observed by Mr. Cate that even by pulling up this plant, & carrying it home little distance a considerable inflammation was excited in the person of the hand in which it was held. This species is one of the most acid & one of the most common in England of the genus. The acrimonious quality may be completely dissipated by heat, & when thoroughly dried, the plant becomes perfectly bland; & its virulency depends much on the situation in which it grows & is greatly diminished in the cultivated plant. Its medical properties, & those of the species of the R. have chiefly been employed as a vesicatory & are used like the adhesive tape of a common blistering plaster in producing a blister effect, or more commonly, a counter. On the other hand it is said to be uncertain in its operation & sometimes occasions ulcers, which prove very difficult & tedious to heal. Upon this use seems to be applicable only to chronic pains & such complaints as require a long continued topical stimulus or discharge from the part in the way of an issue, which in various cases has been found to be a powerful remedy. The case of its recep in chronic rheumatism & other complaints is Dr. Cate's Practice. The manner of using the plant is to bruise it in a mortar, & to apply it to the skin as a poultice or plaster. Moreover they sometimes eat it & even have it introduced into their pastries as we do mustard.

Synonymous. Lat. Ranunculus. Eng. Butter cups. Butter flower. Gold cups. Butter cup. Spot. Kingflower. Meadows. Hartwort. Bl. Nia.

Use. The whole plant is extremely acid, & contains nearly the same acrid principle as cantharides, notwithstanding this other has been so much in use as a substitute. Lindsay. The bulb is formed above the bulb of the last year, when the flower stalks, the old bulb is a dry rot, or found in a state of decay, & the new one is now ready for flowering, but without the least appearance of leaves. (Withering)

[illegible] Mr. Lemaître. [illegible] Mr. [illegible]

The flowers gathered before the expansion of the petals in water, [illegible] for capsules. The juice of the petal boiled with a little alum dyes the [illegible] yellow. The remarkable sensibility of the stamens of this plant, but cannot not [illegible] [illegible] [illegible] have shown it occasions a great irritation till they generally die in May. The fruit have a custom of turning its flowers after the sun.

Class 5 Order 1.

Genus 1. Tetranaxis. Obs. Forms with the barren root

The indigenous perennial plant, growing on the side of the [illegible] the banks of rivers and [illegible] place. Also in gardens. Flowering in the month of May. For medicinal or culinary [illegible] it is also cultivated in gardens. Horse radish root has a quick pungent smell, [illegible] pungent taste. [illegible] when the leaf contains in certain angles a mustard [illegible] which [illegible] [illegible] the surface. Bending [illegible] [illegible] but if the root is a red [illegible] and on the sand it retains its qualities for a considerable time.

The medicinal effects of this root are to stimulate the solid & promote the fluid secretions. It seems to exert its action through the whole habit & effects the urinary [illegible] is gently [illegible] by stimulant in diseases [illegible] [illegible] [illegible]

Liriodendron Tulipifera
White wood. Improperly
called Cypress

Coptis trifolia

London. L. Delphica. Fr. Sweet Bay. Magnolia Glauca. Linn. Sweet Bay.

A native of Carolina, found in the United States, called also American Laurel and Swamp Sassafras, and in some parts of New England and Long Island called Long Swamp Sassafras. It is a very large shrub or tree, with a smooth bark, and a white or ash colour, and grows in the middle of May. The flowers are large, white, and very fragrant. The leaves are lanceolate, smooth, and green above, and white or yellow below. The seeds are red, and grow one over another, and remain out of cone for some time after the rest are ripe. The root has been employed by medical men in the United States as a tonic, when joined with other preparations, for intermittents, and some Florida Indians applied it to the bite of a venomous serpent. It is a strong bitter, and considerably aromatic, and has been found particularly beneficial in the last stage of pulmonary consumption. The powder, mixed with steel dust, is an excellent remedy in relaxation of the stomach. According to Dr. Barton the bark is used in some parts in ague and intermittents. The action of it is said to be a common remedy in Chronic cases of bitter in Europe. Dr. Barton gives the following account of the use of the root. The best time to procure it for medicinal purposes is the month of February, as the sap at that time begins to rise in the root, and is most active: it possesses the qualities of an aromatic and an astringent: the bitter quality is greater than in the cinnamon bark. It has been found an aromatic quality, and a simple astringent, and a powerful tonic. It has recommended itself in a variety of cases of the intermittent fever. It can be taken from experience, it is equally efficacious as the Peruvian bark, if properly administered. In the phthisis pulmonalis, the bitter, greatly aided by the aromatic, when combined with the Lenitives, frequently relieves the cough and other symptoms. Dr. Rush cured a man of fifty years, who was afflicted with a catarrh and dyspeptic symptoms for five years, which defied the attempts of many physicians, by the use of the powder of the bark for two months.

It can safely from experience, then is not in all the Materia Medica a more safe and efficacious remedy in the hysteria, than the powder of the small quantity of Lavender. It is and no remedy in the Materia Medica, for the relief of the pulse after the cleaning the prime vice, for three years. It appears to have

excellent remedy. I have never known it fail in a single case of worms which has come under my observation, provided it was given when worms have taken place. It is to be kept a few days, several hundreds of dead worms have been passed with the stools. The dose of the powder is an ounce; it from a scruple to two drachms, it may be given in tincture, infusion or decoction, but its virtues are always greatest when given in substance."

The following is part of a letter addressed to Governor Clinton of Delaware in 1792 by Dr. J. C. Young, of Philadelphia (Transactions, Med. Soc.) In this letter the governor says: "During the late war the Peruvian bark was dear & scarce. I was at that time engaged in considerable practice & was under the necessity of seeking a substitute for the Peruvian bark. I conceived that the popular red was aromatic & little than the Peruvian bark. I conceived that the popular red was aromatic & little than the Peruvian bark. To correct & amend the qualities I added to it nearly an equal quantity of the bark of the root of Dogwood (cornus florida or boxwood) & half the quantity of the inside bark of the white oak tree. This remedy I prescribed for several years in every case in which I conceived the Peruvian bark was proper or perhaps to be at least equal if not a superior medicine. I used it in every form of intermittent fever, more frequently in the form of tincture. It remains to determine whether the addition of the bark to the popular medicine is a matter of profit; this can only be done by correct experiments in practice."

A further account of the analysis & virtues of this medicine is given by Professor Barton in the Transactions of the College of Physicians of Philadelphia & in a paper published in one of the volumes of Bloch's Phil. Magazine.

Cl. 13. Order 13.

Cortex v. Radix Pellitory, Pyrethrum officinalis. Fam. Gold thread. Nat. Ranunculaceae (Ital).

Use. Golden thread is a very multiplant found in wet swampy situations. The stem is erect & naked the leaves grow by threes at the termination of the stem, & are deeply cut & divided. The white butterflower opens in May. The root appears single, being thread shaped, running, & of a bright yellow colour. They possess a considerable degree of astringency & bitterness, & have been employed by the people in the country as a remedy in aphthous cankers, sores in the mouth of children, with considerable benefit. From the bitter property possessed by these roots they are considered by some to be useful as a stomachic bitter. Dr. Cooke, Cat. of Plants, Pharmacopoeia

Nentha. Mt. Piperita. Sing. Spearmint. Mint. Water of Peppermint. Distilled from the fresh plant. July. Aug.

Obs. The mints are to be ranked for their medicinal qualities which belong peculiarly to the preparations of it, the plants are less efficacious than some of the latter. It contains much essential oil, but of an odour somewhat less agreeable than that of lavender or marjoram. It is therefore less emollient, & carminative: but it acts very powerfully upon the parts to which it is immediately applied & therefore considerably on the stomach, invigorates all its functions & is medically an antispasmodic & therefore relieves pain & cold shivering from spasm. It will also stop vomiting depending upon such a cause, but there are many cases of vomiting in which it is of no service, & in these cases depending upon inflammatory irritation in the stomach itself or in the parts of the body. It exasperates the disease & increases the vomiting. Practitioners are thought justly according to the opinion of Dr Woodville that the infusion of mint in warm water, agreeable with the stomach than distilled water which often somewhat unpleasantly flatulent. Mint according to ancients possessed so strong an aphrodisiac power, that a woman in the frequent use of it became subject to menorrhagia. Lewis observes, "that it is said by some to prevent the coagulation of milk & hence it has been recommended to be used along with milk diet, & even in cataplasms & fomentations for removing coagulated milk in the breasts; upon experiment the use of milk digested in a strong infusion of mint could not be perceived to be any thing more efficacious than in common water, but milk in which mint leaves are set to macerate, did not coagulate near so much soon as an equal quantity of the same milk kept by itself. The officinal preparations are a fixed oil, a concrete, a simple water, & a spirit. (Woodville. The flavour of the spirits being more agreeable than that of others. It is generally culinary & medicinal purposes. The concrete of the leaves is very pungent & the distilled waters both simple & spirituous are universally thought pleasant. The leaves are used in making sallads, & the juice of them boiled up with sugar, is found in tablets. The distilled waters & the essential oils are used for flavoring & frequently with snuff. Dr Lewis says that one of the rectified spirits of mint, given at a time, which appears by daylight

of a fine dark green & by candlelight of a bright red colour. The fact is that a small quantity of this tincture is green either by daylight or by candlelight but a large quantity of it seen under a common daylight, however should be seen by a candle or between the eye & the sun, it looks red, but if put into a flat bottle it appears the green & red & it appears as the flat side & as the edge of the bottle. Withering.

Mentha. M. Piperita. Sys. Peppermint. Water place. Bl. Sep. Sept. –

The peculiar properties of this plant are well known & are matters of recollection. It has been extolled over Europe. It has a more penetrating smell than any of the other mints, a much stronger & more persistent flavour, like a pungent medicine in the tongue, & followed by a sensation of coldness. By maceration or infusion it readily & strongly impregnates both water & spirit, or in its water by distillation with water it gives a considerable quantity of essential oil of a pale pennyroyal yellow colour, growing darker coloured by age, very light. The flavour is in a high degree the peculiar smell & penetrating pungency of the peppermint. Hoffmann & Cullen observe in particular, occasion & pushes for this oil. Notwithstanding the collusive of peppermint seems to be no other than the medicinal virtues included in spirit of wine. (Some water drops of the oil is sufficient for one ounce of alcohol.) It is stomachic, antispasmodic & carminative, qualities which make this plant useful in flatulent colics, hysterical affections, retching, & the dyspeptic symptoms. Acts as a cordial, & often producing immediate relief. Camphor is to be obtained from this plant. (Vorbille). Peppermint water is well known as a carminative & antispasmodic. The stems & leaves of the plant are but little inferior to the mint plant, containing the essential oil which is principally in distillation. The essence of Peppermint is an elegant medicine, & possesses the most active properties of the plant. Withering.

Sep. 1. Iron gymnasium –

Sunflower. S. Helianthus. Sys. Helps to the. Monoecious. Hard. Stem. Leaves. Flowers. Sep. Sept. –

Helps. Sep. Sept. –

Has a bland smell & taste & is food. Eaten by the Indians. Sep. Sept. It has a bland smell & taste & is food. Eaten by the Indians. Sep. Sept. Used as greens & eat it. Indians cook & eat it. Withering.

Chap. 10 Class Syrum Genus

Synonym. M. Drifoe. E. Tolu. Span. Balsamo de Tolu. Balsamum Tolutanum. Fr. Baume de Tolu. Ital. Balsamo di Tolu.

Sp. The leaves have a strong aromatic but disagreeable smell which by keeping diminished, & a little pungent, aromatic taste, lingering in the mouth. It is much esteemed for its efficacy in removing obstructions of the lungs with difficult & hard expectoration & in removing obstinate coughs, pulmonary consumption, intermittents & also mentioned it as useful in various affections of the skin, jaundice, cachexia, & mental depression & vitiated humors. Though it does possess medicinal powers we not understand. It is now rarely prescribed. A drachm of the dry leaves in powder, or a fluid ounce of the expressed juice or an infusion of half a handful of the fresh leaves have been tried as a dose. The last mode is universally preferred by the common people with whom it is a favorite remedy in coughs & colds. Begin dissolve it as tonic, carminative & diuretic. Dr. Cullen classes it as a pectoral & says that in several cases it was judged useful. When in considerable quantities it is said to loosen the bowels. (Woodville).

For a strong aromatic smell & a bitter taste, it is in fact a balsam & we find in an infusion of the leaves in water sweetened with honey, is recommended as stomachic & febrifuge in plant. & most of the diseases of the lungs, it forms a principal ingredient in the Syrup recommended for vegetable poisons. It appears to take mercurial medicines, for from its solution dissolved over the fire, silver was taken to remove it rather increased the complaint, till at length a decoction prevailed an infusion of this plant & the patient was relieved a short time. Some cor. drafts & parts against it. (Nothing).

Class 10 Order 1 Synanthera.

Genus. C. Ur. Spec. E. Sylvestris. O. Officinalis. O. Officinarum. Eng. Wild or Old marigold. Fr. Souci. Span. Caléndula. Italian. Fiorrancio. Dutch. Goudsbloem. It has an agreeable aromatic smell & a pungent taste, much resembling thyme which it is more nearly allied than any other of the articulate & thought to be carminative, tonic, stomachic & diaphoretic. Some effects have been ascribed to the aromatic & stimulate powers which at the back of this method are

[illegible] distilled in water it yields a moderate quantity of very acrid penetrating essential oil, which has been much used for easing the pain of carious teeth, by dropping it on cotton & inserting it in the cavity. The dried leaves and infusion of the herb are certainly grateful. They are also employed in menstrual baths & fomentations. (Woodville) The whole plant is a warm aromatic: the essential oil of it is so acrid, that it may be considered as a caustic, & much by farmers with that intention. A little cotton wool moistened with it & put into the hollow of an aching tooth, frequently relieves the pain. The country people use the tea to dye flannels. Goats & sheep eat it. Horses are fond of it. Cows & swine refuse it. (Withering)

The medicinal qualities of the garden marjoram, or sweet marjoram, have not been so generally known as those of the common above, but being more fragrant the sweet m. is deemed more edulcate & little acrid, so that it is now in place known by the name of marjoram, & may therefore be employed with the same intentions as lavender. In its occult virtues it is said to have been recommended to relieve tumors of the breast. (Woodville)

Class 14 Order 1st Diapensia.

Petiolaris. P. Myrtifolia. P. Canadensis. Dry cow-wort. Common cinquefoil. Pot-herb. Bl. Jun. July.

Nov. The compound juice or a decoction of the plant has been used with advantage as an injection for simple gleet. It is said that if the diseased flock of sheep be fed with it they become healthy & vigorous in a short time, the sound will get sound & they will be drawn with vermin. Cows & swine refuse it. (Withering)

Class 15 Order 1st Monogynia.

Digitalis. D. Purpurea. Dr. Pepper's mayor. Dry. Foxglove. Fingers. Bl. Jun. July.

In the wild, but rarely in the first stage. Bl. Jun. July.

The leaves which have a nauseous bitter taste, have long been used externally for a confirmed tumour with considerable advantage. Internally the plant has been used in epilepsy, and fits of falling, but from want of caution it was found to be a powerful diuretic & has been successfully used by Dr. Withering to be a powerful diuretic & has been successfully used by him of late in many practitioners in the cure of the dropsy; in which case, & in hæmorrhagies it is a valuable & important medicine. In

c. by the foxglove pub. 1785.) But, administered with the high attention or by
the vet. found either rarely or deleterious. Cum. Med. see vol. 2. It has a very con-
siderable power of lowering the pulse. (Probably it is not truly a very active medi-
cine, but has attracted more attention than modern practice has hitherto
allowed to bestow on it.) In Dropsy or Pulmonary consumption, Fever, or Inflammation
it is seen frequently of the duration of the disease, or violently emetic & cathartic
it is said to be useful in scrofula. Dose, half a grain twice daily for some time; & the dose
increased or an ounce made of them occasionally, by effect.
Volumes have been written upon the efficacy of the vegetable medicine. Without
mentioning some any more of them I shall only refer to Beddoes & Jenner's Medical
Obs. & the valuable communications in the Medical & Phys. Journal upon the
subject & to the 2nd vol. of Thacher's Dispensatory, at Cryptogamia.

Class 15. Order Filicinea.

Polypodium. L. Dryopteris. L. Lat. folium. Eng. Wild pepper. Sp. Bitter
Wort. Fr. Common pepper. Common Bitter. Meadow & pasture. It is plenty.
Use. This is one of the acid antiscorbutics, & was formerly used in the place of horse-
radish. An infusion of it is emetic. (Withering.)

Class 15. Ord. Filicia.

Polypodium. L. Dryopteris. Eng. Shepherd's purse. Shepherd's hand. Pastures
roadsides, walls &c. Ch. March. Sept.
Use. It is unfitted to the taste, but it is recommended by many writers in hemor-
rhages of all kinds both as an internal or external application either in man or
beast. Lightfoot.

Class 15. Ord. Filicina

Polypodium. L. Osmunda. L. Polypodium. L. Rotundifolium. Eng. Fern. Sp. Helecha. Sweety. Sp.
Fr. Fougère. Ger.
[illegible] pleasant smell & a warm acrid bitter taste. It [illegible] in the recent
state [illegible] in very small quantity by distillation [illegible] water [illegible]
[illegible] in the aqueous fluid. [illegible] [illegible]

It is a native of Spain, & is cultivated on account of its leaves, which are used as a kind of salad. (Lewis) I have found it extremely useful, aperient & diuretic, & is said to prevent the obstruction of the viscera & mesenteric glands without heating or irritating the system. It has long been considered the most efficacious of all the antiscorbutic plants, for which we have the testimony not only of physicians but of the most celebrated navigators who have experienced its beneficial effects at sea. It is worthy of remark that it grows most plentifully in the Highlands in other countries where the scurvy is most obnoxious. Its medicinal qualities are sufficiently powerful to confirm this opinion. In rheumatism, especially by Sydenham called the rheumatism consisting of wandering pains of the joints, sometimes accompanied with fever, the juice combined with cream & rhubarb is highly recommended both by Sydenham & Lewis. It is remarkably diuretic, & may perhaps from the relief it gives to the urinary organs, be considered as a specific in the gravel & stone. It is a mild remedy in the jaundice, & in short in all the cachectic & chronic diseases. It possesses a considerable degree of acrimony which seems to reside in a very subtile essential oil; a distilled water of a pungent nature may be obtained from the leaves, & its juice is generally taken with that of oranges in the form of antiscorbutic juice. It may be eaten in salad. Notwithstanding its growth on the sea coast, it is cultivated in gardens either for use or for the sake of its foliage. Cows eat it, horses refuse it. Pliny, in Ireland, says that sheep eat it greedily & fatten very greatly upon it. But they acquire from it a very unpleasant flavor.

Chemistry. C. Homoeacia. C. Polygyna. Raphanus Rusticanus. Eng. Horse radish. Indigenous & little cultivated. Ch. Hay.

The root has long been valued as a stimulant, & effect both the taste & smell from its pungency, but in certain cases it has been found most powerful in little dose after the meal; it brings out the virtue of a very volatile oil (chiefly dissipated by drying heat). The root applied on the bare skin raises a blister, & thus forms a powerful stimulant, whether externally or internally employed. Externally it readily inflames the skin & forms a rubefacient that may be employed with advantage in palsy & rheumatism; & its application, if long continued, produces blisters. Internally it may be used with advantage in the cure of dropsy which proceeds from an interrupted secretion of urine; one drachm of the fresh root is enough for four ounces of water, & is ordered in a dose of two drachms, & made into a syrup with double its weight of sugar. Of this syrup two spoonfuls or two tablespoonfuls, twice or thrice daily, or at least repeated twice or thrice daily, have been found very medically effectual in a certain case. This syrup is a valuable remedy for the pains of the urinary organs when the bladder is not at fault. (Cullen M. M. ii. 167.)

Used in the stomach it stimulates & promotes digestion & the appetite is perhaps more powerful than any other. A portion of the infusion taken with a large draught of water readily proves emetic, & may be advantageously used by itself, or to assist the operation of other emetics. Infused in water & taken in the stomach it proves stimulant to the nervous system & is thereby useful in palsy; employed in large quantities it is irritating to the whole body, & hence is often useful in chronic rheumatism arising from atony or other causes. Cold drawn extract having, into very moderate quantity, without having in a large quantity to the amount of a table spoonful for a month, effects it is said to have been extremely useful in arthritic pains; but there are probably other rheumatic kinds employed in this manner. The root bruised & thus used to irritate the stomach, & the whole system, that stimulates without inflaming. It is also brought into use & the most in the dropsy. In this manner the bruised root is perhaps the best known & one of the most powerful diuretics. The root scraped in many parts of our table as a condiment for fish, roast beef, & other meats

[illegible] in paralytic & hysterical cases it is an excellent
tonic & diuretic. a strong infusion of it excites vomiting. The infusion of it in
milk makes one of the best & least commonly known cosmetics. Horse-cows, sheep, goats & mules
eat it well.

Class 15. Order [illegible]

Eupatorium Nettleleaf. The publication of Nettleleaf [illegible] was
[illegible] from a brother's results.

The leaves have a moderately pungent taste & yield [illegible] on
[illegible]. The publication has been generally authorized by Physicians.
Practitioners & the publication has been generally authorized by Physicians.
They are also supposed to possess the [illegible] & [illegible] to some medical obstructions
[illegible] to [illegible] but more mild & pleasant, & are therefore
[illegible] [illegible] The juice of the plant is directed in the Pharm.
Edinburgh [illegible] [illegible] of [illegible] & [illegible] [illegible]

The heart is an excellent medicine & stimulant in the [illegible] [illegible]
the [illegible] it is an ingredient in the antiscorbutic juices. It is very [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]

Class 15. Order [illegible]

[illegible] C. Officinalis & [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
are considerably pungent, & appears to be nearly of the same quality with that of the
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

called nothing. This from his own mouth. He sent a copy of Paul's [illegible]
ich formerly belonged to Mr. Saunders, surgeon at Stourbridge. It was [illegible] to
Cate; & when cultivated in a rich soil & high situation fond of the wind. Hogs
ots eat it; cows, horses & swine refuse it. (Withg.)

[illegible] Sp. Barbarea. Eng. Winter cress. Winter rocket. Rocket wound-
ell. round bank reading places. P. M. A. October
ze. The leaves are used by the common people in Devon in salads early in spring
late in the autumn. They are also boiled as greens, & are more palatable than early
ing salad. Linn. In Lapland also it is cultivated for the same purpose by the name
French cress. Cows eat it. Sheep & goats are not fond of it. Horses & swine refuse it.
ithg.)

Class 15. Ord. Siliq.

[illegible] Sp. Napus. Eng. Rape. Stock. Rape. Napu. Rape cabbage. Brick. Cart com-
ilds. P. M. May.
ze. The roots of the cultivated variety much eaten like turnips, may be eaten like turnips
t they have a strong taste. The seeds which are yellow coloured afford a large quantity of
ed oil which is known by the name of Rape oil. The remaining cake of the seeds
of the oil is called oil cake & is used for fattening oxen. In Holland there cattle are
[illegible] in pieces & thrown upon the land. It is thought to be very efficacious
is sold for 2£ to 6£ per ton. Raffle ton is laid on an acre. Produce 1½ tons per acre.
eat it. (Withg.)

Brassica. Sp. Napus. Eng. Turnip cabbage. Dr. Turnip. Chinese. Cow field. Napus
ze. The roots are either eaten raw, boiled or roasted, pepper is commonly used with
em. They relax the bowels & are supposed to purify the blood. They are healthful
r malt liquors, & to hysterical persons, & to those who are subject to flatulence
n given well fermented, & distilled on a dead spirit. It ripens acro-
mers. The roots kept in sand or in a cellar during the winter, and not exposed to
ost have been which being rather sweet & not unpleasant to the palate are used
called when other roots have been not to be had. But the greatest use of turnips
n feeding cattle & sheep in the winter. (Withg.)

Brassica. Sp. Oleracea. Eng. Sea colewort. Sea cabbage. Common cabbage. Cliffe. Cow cast

[illegible] the cabbage is prepared to the cultivated kinds, but when pickled on the [illegible] it must be boiled in two waters to take away the sulphur. The root may be eaten like those of the preceding species, but they are not so tender. The [illegible] of the cultivated garden cabbage which are much in use are [illegible] from this. The old cabbage is chiefly used for pickling, in [illegible] the white cabbage when pickled grows in autumn, is based at the ground than in the winter. It is a common practice in Germany to cut them to pieces along with some aromatic herbs & salt, & keep them close down in a tub, where they soon ferment. They are eaten under the name of sour crout. Cabbage is apt to be infected early in the year with an insect called the Haltica oleracea, & afterwards the Papilia Brassicae. It may be prevented from the former by strewing the ground with wood ashes, & from the other by whipping the plant with the juice of acids. Cabbage seed is produced for several years together in the same soil, [illegible] smells in the seed & the roots bitter, which is occasioned by the leaves falling [illegible]

Class 15. Ord. [illegible]

Simplex. S. Nigra. S. Tatarica. S. Rapifolia. Hedge. Common mustard. Wild mustard. Sweet. Wild. roadsides. B.C. June.

Use. The seeds of this plant & those of the S. Alba which are prepared by the Blind [illegible] are perfectly alike in the taste, nor in their sensible effects, & they are equally well suited for the use of the table & the purpose of relishing the food, as well from their taste, & when bruised their pungency, which is so exhilarating as to affect the organs of smell. Mustard is considered to promote appetite and to stimulate the viscera by stimulating the fibres & giving general energy to the nervous system. It is considered useful in paralytic & rheumatic affections. Taken in considerable quantities it has been found serviceable in dropsy. In a dilute state it is useful in the tendency & disease of the [illegible] but stimulates the urinary & common passages & is not useful in the stones. It has been recommended as an antiseptic: the seeds from Lancaster Co. Pa. It has been recommended as an antiseptic: the seeds bruised & mixed with the white wine (and in mustard & pickles) very which leads to the confinement of a large. Dr. Gilchrist is said by Gallie, that the use of mustard during the confinement of a large. Dr. Gilchrist is said by Gallie, that the use of mustard [illegible] & injures the stomach & spinal [illegible] [illegible] the common [illegible] that it contains volatile alkali [illegible]

great frequency to be used for it to rule all the [illegible]
[illegible] Religious friends made of great use in scrofula. [illegible] a spoonful of
[illegible] and [illegible] for [illegible] a day during the disease. When the disease was
[illegible] the root of flowers of mustard to the back. Bathing the [illegible]
[illegible] or vinegar, then rubbed with vinegar & salt for a day. The powder burnt
[illegible] man said, should be blended in a [illegible] (yellow). It may
not be considered in general in proportion to the quantity of a spoonful or half an ounce
a dose. Nardoll. The root reduced to powder, make the common mustard as much
[illegible] or salve. They yield a considerable quantity of expressed oil, which has
[illegible] but little of the acrimony of the plant. Taken inwardly in the quantity of a
[illegible] spoonful or more, they fill the bowels, & are of service in asthma, chronic
rheumatism & palsy. The powder and [illegible] with oil & form a strong infusion to
[illegible] water. The infusion taken in any considerable quantity is emetic, in small doses
a [illegible] & diuretic. Cotyledons found with the powder made, crumb of bread
vinegar are very commonly applied to the soles of the feet, as stimulants in fever which
[illegible] & delirium; they are used with advantage. Spirits applied in [illegible] of rheu-
matic & sciatic pains. Where a strong stimulus is required the seeds from the mus-
tard without exactly mash but there is more powerful & [illegible] mustard [illegible]
Note. The seeds & white mustard with vinegar [illegible] commonly used for [illegible]
[illegible] the mustard has the same properties as the above.

Class 15. Ord. Siliq.

Markham. R. Napheniston Esq. White flowered shalock. Wallrocket.
Sinapis corn. Bl. June July.

Use. In cut mustard pots in great quantity among the baby in London it
is known to be remarked that in those parts in those rooms where the plant
bloomed the common people have been affected with very violent con-
[illegible] pains. (Hooper's Med. Dic.). Horses eat it. Cows refuse it. (Nothing of
the Genus plant should in our north meadows & dry great change to
the [illegible] of flavor which pass thro' & so refuse & eat. S. W. M.

Lonicera

Taxus Canadensis

Gen. 5. Convolvulus. T. Bracts. Sp. Brasiliensis. Nine and twenty from Mountain South Africa. Africa.

Obs. The berries are sweet & viscid: children often eat them in large quantities without any inconvenience, but the Cape Dutch ascribe to the Human Species. Those who are entitled by a spoonful of the green leaves; they died without a groan, many of the new & young trees of very little poisons: the same quantity of the dried leaves had been given the day before without any effect. (Received by W. & thought it to cause by the heat & sweat. There are instances of both being killed by it. Branches having been found in their stomachs. Gent. Mag. 56. 90.) Sheep are said to have been killed by browsing on the wood: the offspring in a half dried state. Dr. Withering thinks the most delicate of woods. The wood is hard, smooth, & beautifully veined with red. It is converted into bracelets, spoons, cups for milk, shell & flood pots for small goods, which have of late been. It grows best in a moist loam soil on top or by mountain & the side. It bears transplanting, even when old, as it bears cutting, it is often used for hedges which form excellent screens to keep off the cold winds from the tender plants. The berries are eaten by birds & pulled from the leaves by the Dutch & poets; however are fine thus (Withering).

Class 5. Order 1.

Aralia. T. ... Sp. Japan. ... Wild honeysuckle

Gen. Dec. Corol. tubular, hexa-cleft, unequal or oblique: stamens on the mouth of the tube: stigma obtuse usually ending with a short fringe.

Obs.

Class 13. Order 1.

Actea. A. Spicata. L. Herbe. A. Alba. Eng. White Cohosh. Colonial Indian
Use. The vegetable perennial growing in woods & shady places. It attains to the height
of about least a half feet & flowers in the months of May or June, & produces
black berries in August & September about the size of peas which are considered
poisonous. On account of its fetid smell the plant is said to be frequently boiled
There are two varieties of the plant in the United States, one of which is the above described
by Dr. Little. "Christopher Bauhavii — Polymorphile, Berry red. Or condition or
shady places. Me. The berries are reckoned poisonous. Dr. Pitkins says the plant
is powerfully narcotic & that the root is useful in some nervous cases, but it
must be administered with caution. Actea racemosa, says Dr. Mease (Dom. Med.)
black snakeroot or cohosh, is a very beautiful plant when in flower. The
exhibits of the root of this plant is well known. It is an antiperiodic & Dr. Eaton
says it was used in the form of a decoction as a specific with success in a
fever for that which prevails in New York, many years ago. A decoction of the root was the test. In North Carolina it has been useful
as a remedy in the disease of cattle called the mountain. (Beck)

Class 7. Order 1.

Aesculus. A. Hippocastanum. Eng. Horse chestnut.
Use. This is a very common & well known tree. The fruit is principally fa
cious & produces excellent starch & has been used for food for domestic an
imals & even for man in times of scarcity. But its introduction into the Lon
don Pharmacopoeia was probably owing to it having been used & recommen
ded as a sternutatory in some cases of opthalmia & headach. With this view
it was drawn up the or tails in the form of an infusion & decoction
The bark has been proposed as an indigenous substitute for the very expen
sive & often adulterated Peruvian bark. Many successful experiments
have been made in intermittent & typhus fevers & also i

hibited externally in fomentations, sufficiently warm to form blisters. It may be given in powder to the extent of a scruple, a half or a dram or a dose. It only disagrees with the stomach. But its astringent effect generally requires the use of some aperient medicine. Some species of arnica are cultivated in the United States, on account of the beauty of their heads of flowers. Medical knowledge might be promoted by a practitioner to try the efficacy of the bark of our native species. (Ibid)

Class 5. Order 5.

Tribe 1st Spiraeae. Tribe 1st Prunifolia. Tribe 1st Pomaceae. The fruit not a berry. This is a native of Virginia, & the northern states. The height to which the tree is grown when the soil & situation shall agree with it, is about twelve feet. The very ornamental shrub, & the stem which is a dark brown color is defended by deciduous spines. The decoction of its bark & roots has often succeeded when taken internally, in removing rheumatic complaints. It excites a gentle perspiration. The berries are used to put into a hollow tooth when aching. A tincture of them is used for the same purpose, both of which afford relief. In Virginia a spirituous infusion of the berries is much esteemed in violent colic. (Ibid)

Class 10. Ord. 2.

Tribe 1st Artemisia. Tribe 1st Abrotanum. Southernwood. Tribe 1st Santonica. Worm wood. Tribe 1st Absinthium. Common wormwood.

The two forms of the medicinal species of Artemisia are still regarded as a tale of the Medical altar, as important effects are expected to result from any medicinal virtues they may ~~possess~~ possess. The seeds of santonica have found their way into the very little tale. They have long been held in estimation as anthelmintics; the dose half a drachm of the powder for an adult. The dose given to children in powder is the extent of a grain or half a drachm of the seeds when the stomach is empty, & then continued for several days in a proper cathartic administration. The Abrotanum or common southernwood is a perennial herb growing wild in the woods, & is cultivated in gardens. It flowers in August. The smell of the leaves is strong & disagreeable. Their taste is strongly bitter. The active constituent of the plant is a bitter extractive & a volatile oil. It is used in stomachic complaints & against worms.

[illegible] in medicine, [illegible] in [illegible] & hydro-
[illegible] in [illegible] & [illegible] to be [illegible] an infusion of the
flowers is a good stomachic, & with the addition of [illegible] powder, [illegible]
useful diuretic in some dropsical cases.

This also holds a stronger alkali than most other vegetables. The
essential oil is used both outwardly & internally, for destroying worms. The
burning or [illegible] acrimony of the fermentation is often employed to excite fer-
mentation; & if the plant be macerated in boiling water, & repeatedly applied
to a bruise by way of cataplasm it will not only speedily remove the pain
but also prevent the discoloration of the part. (Ainslie)

Class 4. Order 1.

Order. Siliquosa. Fruit a silique. Inflorescence terminal. Inflorescence [illegible]

Uses. This simple plant abounds in the nourishing mucilage & saline
combination in a high degree. The [illegible] name by which it is generally
known is taken from its very rank & disagreeable smell resembling that of
garlic or polecat, & from its bearing some thing of the cabbage. It is consider-
ed a species of the acrid. The roots & seeds, when first inclined to the mouth, a pungent
fragrance & acrimony. But according to Dr. Cutler the fructification & essential
differ from all the genus of the order, it must under this be considered a new genus.
This plant has no stem, & the flower is the first part which appears in spring. The
the leaves next appear at a small distance from the flowerstalk in a circle, from
as they are represented on footstalks. The calyx consists of a very large, permanent
sheath, of a thick coarse substance & of a whitish form: open on one
& split out on the opposite. The origin is visible at the base & somewhat be-
at the apex. The petals with the sheath. The flowers are placed round the
receptacle in an oval form, & are so compact as to appear like a solid, thick,
with small regular protuberances on its surface. Corolla consists of very thick,
row of truncated petals. Stamens four filaments [illegible] on the receptacle
[illegible] the corolla. Anthers [illegible]. Pistil [illegible] [illegible] rather
[illegible] the stamens. Stigma bifid. Fruit large, roundish, single, inclosed within the
sheath. The globe of flowers is nearly of the colour of the sheaths, which is
[illegible] variegated with scarlet & yellow.

[illegible] the [illegible] is from [illegible] the [illegible] of a [illegible] in [illegible]

[illegible] have proved of excellent use in obstinate cases, & often afforded relief for the children when other means are ineffectual. It should be exhibited during the paroxysm or method as circumstances may require in doses of thirty or forty grains. It will be proper to give in the interval of fit for some time after the paroxysm has gone off or till the patient perfectly recovered, which is said to have been the method pursued by the Indians for a cure of the disease. The Rev. Dr. Cutler has announced his opinion of its efficacy, as evinced in his own particular case after the remedies had disappointed his expectations. The antispasmodic powers of the dried cabbage root have been displayed in powerful in other diseases. In one of the most violent hysteric cases I ever met with, [illegible] a teaspoonful of the powdered root in spirits & water procured immediate relief. In conjecting the child with the same patient, it afforded more lasting benefit than other medicines. In three persons [illegible] the abdominal muscles in pertussis, he adds, it produces the desired effect in doses of one teaspoonful repeated occasionally. Numerous other instances of spasmodic affection & also in chronic rheumatism, most either in powder or decoction he extend its efficacy & pronounced it superior to any other by gout & tart in confirmation of my own experience. I may add, I have stated in which the medicine has been supposed to be a valuable efficacious remedy. The teaspoonfuls of the powdered root being taken every morning carefully till the cure was effected. The cost of this plant are said by some to be [illegible] more cheap in authentic cases than the root. A caution is mentioned by Dr. Cutler in collecting the roots, the white hollow or pith, which some people in the South, would be not mistaken for this plant, as the consequence might be fatal. There is an obvious distinction, the hollow has a stalk, but the sea kale has none, & the root of the latter are much large than the former. (Ibid)

Chap. 3. Order 2.

Genus. 2. Secale. Eng. Oats

When dressed of this kind are formed into groats, rate are converted into an excellent dish for the infirm and diseased. When ground into meal in water they afford a thick & nourishing mucilage, which with the addition of a little milk & sugar is well adapted for the nourishment of the [illegible]

[illegible] is boiled down to a jelly, & is called Moxa. In these forms acts as a nutritious & easy of digestion food & decoction, of great & extensive use, & is plain, wholesome, & nutritious food, & an excellent drink in febrile diseases, diarrhoea, dysentery, &c. & from its demulcent & protective properties in inflammatory diseases, hoarseness, coughs, & relaxation of the fauces. Ibid.

Class 5. Order 1.

Capsicum. C. annuum Linn. Eng. Red. Bell. Cockspur Pepper.

Habit. This species of pepper is a native of South America, & is cultivated extensively in the West India Islands. The pod is long, pointed, funnel-shaped, at first of a green color, & afterwards of a bright orange red. The taste of capsicum is extremely pungent & acrimonious; retains the mouth as it were on fire. Its pungency is completely extracted by alcohol, & partially by water.

Cayenne pepper is the indiscriminate mixture of the powder of the dried pods of Capsicum annuum & other species of capsicum. These peppers have been highly used as a condiment, & have a warm stimulating effect upon vegetable food, & prevent flatulence from vegetable food. Abuse of them, however, gives rise to vicious of the stomach. Abuse of them. In a few of them, however, give rise to vicious of the stomach. Abuse of them. In a few of them, however, give rise to vicious of the stomach. Abuse of them. In a few of them, however, give

a species of cynanche maligna, which proved very fatal in the West Indies, yielding the Jamaica bark, wine & other remedies commonly employed in practice. Though successful in the West Indies, it is said, it is not without danger from the inflammation it is liable to induce.

In tropical climates, cornua & bubinas are common attendants, & in such cases the claims of capsicum have a speedy & good effect. They seldom bite, unless kept on too long. In Spotsylvania, from relaxation, the diluted juice of capsicum is a sovereign remedy. (Mrs)

Class 4. Order 1.

Genus. 1. Florida. Eng. Common - Spiraea. Linn.

Obs. This is one of the most beautiful & useful shrubs, growing in almost every part of the United States. In New England it is well known by the name of Meadow. It flowers early in the spring & with so much regularity that many farmers in the country are accustomed to name the spring season from its flowering. The flowers generally begin to make their appearance about the beginning of May, in the middle of May and are most beautiful appearance. The large white flowers form a fine contrast with the green of the foliage & are the ornament of the woods. They are succeeded by a long spike or berries of a rich glossy crimson which ripen in September. They have a very bitter taste & an infusion of them in rum or brandy is made use of in the country as a pleasant morning bitter. The bark & the stem & root is considerably astringent & has long been employed in intermittent fevers. Under a homœopathic profession closely allied to the Peruvian bark, the 4th following article which I received in a letter from Dr. Ch. Comm. Medical Society of Philadelphia will be found.

Class 5. Order 2.

Genus. G. Lutea. Eng. Gentian.

Obs. Gentian is a perennial plant which grows upon the cliffs, pastures & other mountainous parts of Europe. The roots are long & thick, outwardly of a brown colour & internally spongy, & of a yellow colour without any or a small milk. It is exceedingly bitter & has been employed in bitter infusions, alkali & tinctures only the bitter extractive, to both the exclusion of mucilage. Gentian possesses the purest tonic of bitters, is innocent & is wholly devoid of astringency. Taken into the stomach

 It proves a powerful tonic, & in large doses it evacuates the intestines. It is useful in debility of the stomach in general debility & in gout. combined with tonics it can be administered. The dose of the dry in powder is from 10 to forty grains; tho it is more frequently taken in the chief ingredient in bitter wine, tincture & infusion. There are several species of gentian in the U. States Dr. Schoepf particularly mains a few species with narrow leaves, which he found in the glades of Pennsylvania. Ind.

Class 16. Order 10.

Gordonia. G. Lasianthus. Ang. Loblolly bay. Loblolly

Use. This is a common plant near Philadelphia & in many other parts of the United States. It is commonly known by the name of "Loblolly" & flowers in the spring. It is a powerful astringent & will stick very violent bleeding if applied to the wounded vessel. A decoction of the plant has also been found on trial to have great efficacy in restraining internal hemorrhagy. The root boiled in milk is a common domestic remedy for the bowel complaint of children. Ind.

Class 4. Order 2.

Hamamelis. H. Virginiana. Ang. Witch-hazel.

Use. This tree is native of the United States. The leaves are nearly incurved & nearly ovate. Blossoms yellow: stand three or four together on short footstalks. Leaves and blossoms lightly & bitter. This singular shrub does not mature its fruit until it leaves are destroyed by frost, when its numerous blossoms make gay & agreeable appearance & continue until the weather becomes very cold & snow falls. The germen endures the severity of our winters unimpaired; for the fruit does not ripen until the next September the time of its blossoming again, when the ripe fruit & blossoms will be found on the same tree. The Indians considered this tree a valuable article in their Materia Medica. They employed the bark chiefly as a decoction to prevent & control inflammation. & cataplasm of the inner part of the bark &

and to be very efficacious in removing painful inflammations of the eye. The bark chewed in the mouth is at first very mucilaginous, & then leaves a pungent acrid taste, which will remain for a considerable time. The dried leaves of this tree seem, by our means to be accidentally introduced. It is probably powerful & very valuable. Dr. Barton informs that the bark gives the best bitter, from a common root.

Class 18. Order 2.

Corollaria. 1. Helenium. Ang. Elecampane.

Obs. This is a very large perennial plant, sometimes found in moist places. The root especially when dry has a strong aromatic smell & taste on first chewing, is pungent & must be avoided quickly acrid & aromatic. Dillenius says. The ancients extolled a high kind of elecampane which seems for promoting expectoration in chronical asthma & coughs. It only takes its strength from the bitter. It consists of gummy, bitter, resinous & volatile parts. Its dose is from half to 60 gr. powder, stalk & leaves powdered by experience to be preferable to the root.

Juglans cinerea Mr. Butternut. White walnut.

This tree is generally known throughout the United States and is now introduced into the Materia Medica of the Massachusetts Pharmacopoeia. A tincture of the inner bark of the root is made from the inner bark of the root. The tincture was the article made from the inner bark of the root. It was formerly administered to patients under the supposition that it was found to be an excellent substitute for jalap or other cathartics. It was extensively used in large doses for this purpose, but experience has proved it to be a very uncertain and dangerous cathartic. It is generally combined with calomel & rhubarb. Combined with calomel it is more active & efficacious than when used in small doses. The extract is often very carefully prepared by the country people & sought to be prepared by the apothecaries or practitioners themselves; & as a domestic medicine of considerable importance it should be added by every physician. The bark of the root of this tree will exclude flies & the bark & shell of the nut dye a good brown color. The tree is a native of the inner back country, & is a native in the direction of the inner back country. The extract should be made from the cream of horse called the yellow water. The extract should be made from the cream of horse called the yellow water. The extract should be made from the cream of horse called the yellow water

its limbs as the other oak. The wood resembles very much the white oak but the first bark grows more close than the white oak. The bark is used by the Indians in Virginia, & particularly on the banks of the Ohio. It is of a fine brilliant crimson color & takes a good polish. It is hard & heavy & is much prized by the Indians for its beautiful crimson color, & in all cases it is used with the bark on it. The bark is not used indiscriminately, but the only one that is cultivated in this country. It is by the name of the big shell bark hickory. The fruit is much larger & better than that of the other sorts. In the southern states it is used in pickles for venison, & the nuts are sold for this purpose when they are cracked for sale. — Should this oak seem to be the best adaptation for cultivation here, the nut should be cultivated in nurseries for a few years, but should be left alone for many years. The nut should not be crowded but it should be left alone until it is taken up, in the meantime care should be taken that the young plants do not get out of the ground. The nuts should be left for timber. There is also a species of the oak called the Spanish oak, which is considered the finest timber of the oak. It is considered the best timber of all the oak trees. It is not so much known. The wood is very hard & strong. It is not so much known.

Chap. 10. Order 1.

Class 2. Polyandria. Sex. Hermaphrodite. Genus. Gossypium. Cotton Tree.

Sp. Char. The largest of the annual species of Gossypium, growing to the height of eight feet in warm & moist rich soil. Flowers white, tinged with purple. The seeds are said to contain a fine oil. The natives of the south, they are said to have used the plant to destroy themselves. The Indians are highly prejudiced against it, but the planters cut them with impunity. The slaves of the south are accustomed to poisoning by eating. The Indians are in the habit of using it in the winter for a cure of some fevers which are of this class.

From the experimental inquiry and investigation published in Philadelphia in 1798 Dr. Thomas Cooper finds that the destruction of this plant, produced by putting one of the leaves in half a pint of water, brings it down to four ounces, and the number of eight weeks continuance. The root of Gossypium herbaceum

time a day, but producing vertigo; it was demonstrated to be [illegible] a day. The
[illegible] could be cured by cutting the fat, with the exception the scab had [illegible]
capitis was also cured by rubbing the head with an ointment made of the fat
of Dr. Barton's testimony of the efficacy of this ointment in the time
of Dr. Barton's testimony of the efficacy of this ointment in the time
of the plant in fat spirit is an active remedy.
Solution of the leaves of the plant in fat spirit is an active remedy.
Some kind of rum and water decoction has been known to yield to the efficacy
application of an infusion of Rhubarb leaves & [illegible]

Class 10. Order 1.

Lactuca. L. Lettuce. Tour. Common Garden Lettuce.

Gen. Char. Calyx common polyphyllous. Corolla compound, regular, equal, hermaphrodite. Stamens five. Anthers cylindrical. Germen oblong. Stigma simple. Pappus simple, sessile. Receptacle naked. Seed compressed, with a long beak.

Spec. Char. Plant perennial, growing spontaneously on rubbish, beside houses, flowering in August & September. The stem is from four feet, & finish on the top with a panicle. The leaves are lanceolate, pretty indented, they are hairy & their midribs prickly on the back part. Stem leaves expanded, flat, lower under the stem leaves, but smaller. Corollas numerous, yellow, opening about seven & closing about ten in the forenoon. The plant yields a large quantity of milky juice, which smells like opium & tastes like it. It possesses some of its effects, it exerts power with of the nervous system & induces sleep. The extract prepared from the expressed juice of the leaves of the plant, poured down in doses, is a [illegible] in pills & in solution. In defence of long standing proceedings

cual obstructions. It has been found to be a valuable medicine in Dr. Collin's hands. It is said to agree well with the stomach. To general taste it is pretty bitter, for a bitter diuretic, & somewhat diaphoretic. Partial dilation of the pupil follows its operation. Dr. Collin of Vienna asserts that out of twenty four special patients, all but one were cured by this medicine. Ibid.

Class 9. Order 1.

Dracon. L. Lancefolium. Gen. Lancefolia.

Ess. This is a native of North America, & is cultivated in Jamaica. The wood, root, & the bark are used. The leaves are moderately fragrant smell & a mild aromatic taste. Lancefolia is a warm spirit & stimulating medicine. It is often successfully given in the form of infusion or decoction for improving the tone of the stomach & bowels in persons of cachectic habit. The essential oil is a highly stimulating & heating & must be given only in very small doses, being a valuable diuretic remedy. The bark is used in tinctures, the oil is said to be efficacious if taken internally to excess. Dose.

Pro Californicum. Gen. Spring vetch. The fruit of Lancefolia & its tincture become very mucilaginous in copy, & it makes an excellent vehicle for chemical ointments of the eyes. Ibid.

Class 14. Order 1.

Lavandula. L. Spica. Gen. Lavandula.

Ess. Lavandula is a well known small shrubby perennial plant, a native of North of Europe but frequently cultivated in our gardens for its sweet flowers. There are two varieties. The flowers of both have a fragrant agreeable smell & a warm pungent bitterish taste. The broad leaved sort is the strongest in both smell & yields in distillation thrice as much essential oil as the other; it is also the sort specifically known, since in the enumeration of Tournefort & other botanists. This is only used for the distillation of the essential oil of spike. The narrow leaved is cultivated commonly out with in our gardens. Lavandula is considered a warm stimulating aromatic. It is principally used as a flavoring

Leontodon. L. Indicum. Fr. Dandelion.

Use. An indigenous perennial plant, growing in meadows & pastures, or roadsides, flowering late. The bruised & bitter plant, which has given it its systematic & the remarkable quality of expanding its flowers in the morning, & closing in the evening. The root, when & stalk contains a profusion of bitter milky juice, which possesses considerable activity. It more immediate effects are to remove visceral obstructions, & promote the urinary discharge; the leaves are sometimes used for this purpose, for some time & be taken thus or from time to day, & the expression has contributed its great efficacy in chronical cases of the complaints connected with a disordered state of the biliary organs.

The medicinal virtues described are highly extolled in the treatment of chronic inflammation of the liver & incipient scirrhus of that organ & also in some chronic derangement of the stomach, in a dose of half a drachm of the extract three a day. With a strong decoction of the fresh expressed juice in doses of from two ounces to four, two or three times either the twenty-four hours, with the most perfect preservation. Ibid.

Class 20. Order 3.

Cephaelis ipecacuanha. Marantaceae. Fr. Cat-a-pillar. Indian root.

Use. The plant was originally the production of the East Indies, but now also in Jamaica & the West Indies Islands & in South America. It resembles very closely Stoke root in its general medicinal qualities, but is said to exert the effect to afford a much larger proportion of mucilage than any vegetable bitter of superior activity & an article of diet for the sick & invalid. Hence it is of superior value in the general debility in high fevers especially in case of cancer, either in the general debility in high fevers consumption or in partial secretions as in affection of the urinary passages, mucous inflammation, atonic or general, & also in affection of the bowels in the form of dysentery. It finds also a excellent remedy for the bowel complaint which is common & prevalent in the United States, during the warm weather

ficially among the Romans. The potash is made by reducing to a fine powder the ashes of the fern, and in which solution oysters will vegetate in a few days, in a pot boiling water, showing that at the same time it will be an excellent gelatine which may be secured with eggs or milk, or a little common isinglass may be added. Such a solution may be prepared without difficulty from the stones, the solution of a little animal jelly, will obviate the effect, if used in the form of finishing the surface of the prepared stone, of the farinaceous substances, & perhaps a delicate & very fine flour for consistent pretext. Credit Dr. Wright of Jamaica, discovering the fine stone, has excellent fitness in earthenware, see Philosophical Publications 96. By Mr. S. Rule for first the setting of this well established Rifle, recommended to the West India planters, & the manufacture almost an object of importance & the most eligible substitute for steel made of wheat. By the time completion cost millions of pounds weight of steel are made annually in Great Britain alone from that one single process. It appears also by the method, that the most valuable of the finest quality & the most common, it is equal to two pounds & a half of wheat produced from wheat. Into the amount has of late years been introduced into the setting of the saline & gypsum. & by practical experiment it is ascertained that the only method of this nature is well adapted to Sir John Cochrane Bart. an object of planters, Mr. Simon & Campbell Esq. Esq. of St. Kitts island, have, it is understood, succeeded in this attempt, & afford the most flattering encouragement that the shortest & cheapest way be added to the numerous modes of wealth enjoyed by our West Indian planters. The letter gentlemen state that a spot of land on his plantation (Dr. Arrow) not 12 yrs in the production of 1840 pounds to the acre. No production is presumed can promise a more powerful remuneration to stimulate the planters attempt, & to be tried. & when it is considered that in proportion to the cotton the demand will be extended, it claims a most flattering attention, may perhaps be anticipated. Mr.

Class 13. Order 1.

Sanguinaria. S. Canadensis. Linn. Blood Root. Puccoon

This is a common plant in the United States & is called also red root, Indian paint, tormentil. The leaves are round, cordate, deeply sinuated, stems naked, sup. pose single flower, blossom white. It grows in rich woodland, & flowers in April. When the fresh root is broken a juice issues in large drops resembling blood. The Indians used it for painting themselves, & highly esteemed it for its medicinal virtues. It is emetic & cathartic & cathartic, but must be given with caution. An infusion of the root in rum or brandy makes a good bitter. If it be planted in rich shady borders, it flourishes well in gardens; & the large leaves & blossoms make an agreeable appearance soon after the frost is out of the ground. Cutler's Thomas inaugural dissertation on Sanguinaria by Dr. Dorsey of Philadelphia 1833. the following useful information is obtained. The root is from one fourth to half an inch in diameter, from three to four inches long, sending forth numerous stringy fibres two or three inches long: a colored liquor is thrown out when the root is broken. The stalk is nine or eight inches long & the thickness of a quill. The leaves are cordate & lobate. There is but one leaf to a stalk; on each lobe, one large fibre, of a light yellow colour, may be seen running from the stalk, & many smaller ones branching from it in all directions. The powdered root in doses of 15 or 20 grs. is powerfully emetic. Eight grains is a mild dose, & is but little inferior to ipecacuan. It contains a large proportion of gum, some resin, & extractive matter. The first & last are the most active part.

The leaves & seeds of the plant are powerful & diffusive stimuli; promote sweat, & are given in Maryland with that view to farmers, to promote the sudor of the cart. A tincture of the roots is used to prevent the intermittent fever; & a decoction of the roots to cure the dysentery. In one case it operated powerfully upon the uterus, & produced abortion, hence it might be useful in female obstructions. ——— The seeds are said by Professor Barton, to possess nearly the same qualities with those of stramonium, viz. they induce a rave, delirium, dilated pupil &c. A delirious property under also in the leaves

Class 5. Ord 1.

Gen. Lima. Officinalis. Ang. Lime.

Lime is much esteemed in the prevention or cure of scurvy, more on the score of its powerful antiseptic properties than on that of its being a vegetable acid. Which is lost in the making of lime juice when combined with the juice of lemon. It is an useful stimulant. [illegible]

Class 5. Ord 1.

Gen. Lima. N. Tabacum. Ang. Tobacco.

The tobacco plant is a native of America where considerable quantities are raised for exportation. The leaves have a strong, disagreeable, narcotic smell and an intolerably bitter taste. The active ingredient of tobacco is an essential oil, which even small animals are almost instantly killed when wounded by a needle dipped in it. A few drops of this oil taken internally have occasioned a fatal poison. The pernicious effects of smoking the leaves of this noxious plant may be easily imagined. As the effects of tobacco are those of a powerful narcotic, they are very natural to vomiting. It reduces the force of the circulation, occasions extreme debility, with trembling and cold sweat. A decoction made of the leaves of tobacco, taken into the intestines, has at one time employed in the cure of obstinate cases of hernia, but it requires to be managed with much caution. The cold infusion of the strength of tobacco leaves to one pint of water, is a more convenient mode of exhibition. It is a cathartic. The smoke received into the mouth relieves the pain of toothache by its narcotic power, or by exciting a profuse salivary discharge. Indeed it proves an excellent errhine & sternutatory when insufflated through a tube into the nostrils. In infusion it is also applied externally for the cure of prurigo, tinea capitis, tumors, bites.

The ingenious dissertation by Dr. Bradford of South Carolina, published in 1810, has shewn that the acrid principle of tobacco in the system, that is, the narcotic & emetic, is a concentrated acid. Hence the antiseptic & other powers of tobacco. In case of exit & other chemical properties, the

pears it be an invaluable remedy. As a diuretic it is extolled by Sir Ejam of one indigenous plants. Dr. Coxe, in extensive experiments, has proved it to be a powerful diuretic in cases of dropsies & dysuria. He prescribed it in the form of infusion, about eighty drops of which he considers to be the average dose for an adult, or to begin with sixty drops of it, increasing the number by four, eight or ten at a time, to one hundred or till their obvious effects on the system or the particular disease shall be ascertained. The repeated time for administering the medicine is two hours before dinner, & at bed-time; it being observed to disagree the most with the stomach, in the morning fasting.

In cases of nephritic colic, or gravel, the infusion was given with a tonic effect. In many cases of Mr. Coxe found the infusion to be a good cathartical, & to afford great relief. The decoction of tobacco was in cases of colic, found relief almost instantaneously after other medicines had proved ineffectual. The dose of the infusion, in relation of a pint of water, & the medicine dose in the form of injection, & for an adult of an ordinary constitution, this is to be varied, as the strength of it increased or decreased may require. —— In the iliac passion, & in hernia, both the infusion & smoke of tobacco have been employed in the form of injection with the happy effect. In tympanites & ileus, strong clysters of tobacco infusion have greatly relieved the patients. In a lumbago it is observed of being held in high repute either taken internally, or according to Professor Barton, the leaves to be pounded with vinegar & applied in the shape of a poultice to the region of the stomach, or other part of the abdomen. In consequence of the application vomiting often discharges after powerful but tolerable intestinal in view. —— In cases of obstinate constipation of the abdominal viscera, the infusion of this medicine has been administered, & often with immediate relief, by occasioning a steady evacuation of the obstructed indurated feces. In the tetanus or lock jaw, injections of this infusion have been used with success: they not only hasten evacuation from the rectum, which is usually obstructed, but from

the hemorrhagic form occasioned by the bite of the viper of Java, specimens in this Museum. Dr. Henry Lewis of New York has employed with marked success a certain form of snuff of tobacco, applied to the vertebral column about 24 hours before the expected accession of the paroxysm both in epilepsy & obstinate intermittents, & in two cases of general convulsion by means of the tourniquet in the form of serpent, ground down & blown in the nostrils. Ibid.

Class 12. Order. 1

Genus. P. Cerasus. Bird cherry tree. Rum Cherry. Dog cherry.

The common wild cherry tree is often found in woods & hedges, & is associated with the trees of the forest, growing to the height of forty or more feet & of very large size. It is produced from the stone of the fruit dropped by birds. The timber is capable of receiving a fine polish & resembles mahogany, & is used by turners & cabinet makers for many purposes. The small crude fruit (which is said to be equal to gum Arabic) is ripened in autumn & is called Rum cherry. The leaves & the gum which issues from the tree are frequently used in medicine for the Persian lark, with great success. It is slightly astringent & commonly produces vomiting in those who take it. From the experiments of Mr. C. Morris of Virginia it appears that the bark of the root is more powerful than the bark of the trunk. It has been very useful in incipient consumption of the lungs. In Indiana, the decoction of bark in the cure of syphilis. Very excellent effects have been produced in bad conditions of the blood, with ulceration of the throat, & the same has been used in the hooping cough. The leaves of this tree are poisonous to certain animals. With the exception of the United States or at most, a few years in Pennsylvania, thousands of dollars worth of the country for the Persian lark — Cherries that are ripened are according to Dr. Wallich are

240 Use & Effects. Low the medicine in the true dropsy, in fluid fever, & the dysentery, in diseases to those persons who are liable to obstruction in the abdominal viscera. Nor are they to be forgotten in constitutions in which life is critical when stomach is troubled with fermentations, & those affected with the flowing breath; all these persons should eat them freely. Potatoes in an early stage. For similar reasons Plums Prunes form an excellent article of diet, in acute & in chronic dysentery, cooling & antiseptic. Ibid.

Prunus. 2d Species. The French prune tree. Plum tree.

Use. Numerous varieties of prunes or plum trees are cultivated for purposes the fruit of which when dried are called prunes. Best quality of the dried fruit are imported from the continent of Europe, but the French prunes are thought the best.

The contain much mucilaginous & saccharine matter & their medical effects are, a slight laxt. & gently lower the bowels which the mucilaginous matter helps to lubricate the passages & soften the excrement. They are of considerable value in costiveness, accompanied with heat or irritation which the more stimulating cathartics would tend to aggravate. Prunes are not of themselves sufficient. Their action may be increased by joining with them a little rhubarb, or the like; to which may be added some aromatic ingredient to prevent their occasioning griping. Ibid.

Chap 5. Order 3

Class 1. Succulents. Fig. Narrow leaved succulents.

Use. Narrow leaved succulents are actually in most part of the United States, owing to the length of the fruit, a valuable vegetable. The leaves are very common & should be the principal source of the agreeable acid taste of this

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Ostrich
Nicodemus:
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They are
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[illegible]
may be
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Obs. A
Obs. Nin
[illegible] to the
[illegible]

Mon. N. Glabrum. Eng. Pennsylvania Monarch

Syn. Mon. Glabrum. Moth. Pennsylvanian Emarginatum

[illegible] to the height of eight or ten feet. The leaves are pinnated [illegible] on both sides of a large [illegible] and are very [illegible] like the flowers [illegible] in July. The [illegible]

The two species should be more accurately [illegible] with the genus [illegible] on account of the [illegible] of the flowers. They are also [illegible] which [illegible] in [illegible] the [illegible] [illegible] [illegible]

Genus II. Dermatodes. Poison Ivy. Three Leaf Poison Oak. Swamp Sumach.

Use. Poison oak & ivy stalk, leave trifoliate with pretty large footstalk, that enter north & northeast hedges. The flowers come out from the side of the stalk in loose panicles are small & of an greenish colour. This plant, the stalk in loose panicles are small & of an greenish colour. This plant, south called poison vine, is so acrimonious that the touching of the leaves or rubbing them on the skin occasions itching, inflammation & eruption. Dr. Alderson of Hull has given the leaves in four cases of paralysis in doses of half a grain or a grain three times a day with marked success; all his patients recovered to a certain degree, the use of this herb. It has been given in large doses without exhibiting the same effects. It was not found inactive. In one case the patient discontinued its use on account of the disagreeable priority it occasioned; & in general it operates as a gentle laxative, notwithstanding the torpid state of the bowels of such patients. (Thacher)

Genus III. Dermis. Poison Sumach. White Sumach. Swamp Sumach. Use. Poison sumach is the largest of our native shrubs, & when grown in marshy places makes a fine appearance. In Newfoundland this is commonly called vegwood.

The above medicines, tri-foliate & dermis are highly poisonous & are particularly active in warm weather after a meal & when the rest of the plant is most ripe. The other dermis is more violent than the other species. Poison will be communicated by touching by rubbing any part of the plant, or even by the smoke when burning or the steam of a decoction of the plant. In about forty eight hours an inflammatory condition appears on the surface of the skin, attended by pain, swelling & itching & fever. The condition soon subsides, after which the inflammation subsides, & the eruption lasts for a short time but the patient frequently suffering blind for several days. It of course somewhat differs in different constitutions, & we are in some persons incapable of being poisoned with it at all. The symptoms are violent, smart purging, cold sweats, & sometimes convulsions, or even a coma & death. Dr. Alderson has observed little or no effect applied to the skin.

and a solution of corrosive sublimate in water to answer the purpose of a
[illegible] & speedy cure. — On cases of the remarkable effects of this poison has
[illegible] the formation of the coal tar of the urethra. The patient having
[illegible] completely exposed of the fire from the bare of a piece of iron was attacked
with violent inflammation and tension of the whole body with
[illegible] & extreme pain. The whole surface of the body swelling of the red &
[illegible] exhibited the appearance of a most malignant kind of small pox.
[illegible] obstinate was the danger from symptoms that at the suggestion of his medical
[illegible] consultants he had hopes his recovery effected. — Dr. Crawford in his work
[illegible] inquiries relative to the venomous nature of the rhus glabrum
[illegible] declares his full conviction, after many judicious experiments, that the poison
[illegible] in the true varnish tree of Japan described by Kempfer. He found that
[illegible] the most quantity of juice was obtained from incisions made in the tree about
[illegible] the 20th of May. Thunberg & others are also of opinion that the Japan varnish
[illegible] so much celebrated may be obtained from our native species. It is a subject
[illegible] worthy of attention. — A similar instance is related in the Natural
[illegible] of the poisonous effects of the rhus venenata upon a person of Ben. the
[illegible] of which the skin of the hands & arms, the lips & the branch were found
[illegible] & their bodies turned black & swelled to nearly twice their natural size. (Ed.)

Chap. 15 Roses.

Rosa. R. Damascena. The damask rose.
Use. For a pretty tender flower of flowers & for its fragrance & elegance has
[illegible] at the ornament of every garden. It is sometimes called British Damask
rose. The Damask rose yields on distillation a small portion of a fragrant oil to-
gether with a water which possesses the odour & taste of the rose, & is generally en-
ployed for the speedy flavour they impart to culinary preparations & also to cordials.
A vehicle perfume is obtained from the flowers by distillation called Otta or es-
sence of roses. The Ottar of roses is sold in the East India at the rate of
price of twenty guineas & upwards per ounce. It is the most elegant of
perfumes in vegetable nature, as a single drop suffices to fragrance the most
[illegible] room or dwelling & perhaps the life of a great nation. (Ed.)

Hyacinthus Blue bell hyacinth

Class 6. Order 3.

Rumex. R. Aquaticus. Eng. Water Dock.

Loc. It grows in heat moist ditches, & at the side of rivers, & in shallow waters & flowers in July & August. It is accounted a large weed. This plant affords a medicine of considerable efficacy, when applied externally, as a wash for sloughy ulcerated gums. The roots have been found excellent for cleaning the teeth. These roots are of a bitter astringent taste, & have been employed for the cure of cutaneous diseases, either administered internally, or applied externally in alkaline lotions or fomentations. Decoctions of the leaves are likewise of efficacious benefit & have been taken with advantage in rheumatic pains, & chronical diseases occasioned by visceral obstructions. The dose usually given is a decoction of half an ounce of the fresh roots, or from one to two drachms of them in a dry state.

The Indians, says Dr. Cutler, send the root of yellow dock with great success in cleansing foul ulcers. It is said they endeavour to keep it a secret from the Europeans. —— Dr. Withering says he saw an ill conditioned ulcer of the mouth which he destroyed the palate, cured by washing the mouth with a decoction of the root, & drinking a small quantity of the same decoction daily. (Hach.)

Class 10. Order 1.

Ruta. R. Graveolens. Eng. Rue.

Loc. This is a very small shrubby plant met with in gardens where it flowers in June & bears green leaves throughout the winter. It has a strong nauseous smell, & a bitterish penetrating taste; the leaves, when in full vigour & extremely acrid, inconsiderably blister & redden the skin if much handled. Former writers on Materia Medica have entertained a very high opinion of the medical virtues of this plant, & it is still retained in the Materia Medica & other Pharmacopoeias. It has been considered as powerfully stimulating, attenuating & deterging, & hence in cold phlegmatic habits it quickens the circulation, & in tumefactions gives some obstructions of the excretory ducts & promotes the fluid secretions. Boerhaave is extravagant in his praises of the essential oil & distilled water of rue for their efficacy in promoting sweat & perspiration, & for the cure of the hysteric passion & epileptic fits. In modern practice rue is not esteemed as possessing much power as a remedy.

Class 21. Order 2.

Salix. S. Alba. Eng. White willow.

Use. The species or varieties of the willow which have been mentioned by botanical writers are very numerous; & it is very probable that the bark of them all possesses properties in many respects similar. In 1763 Mr. Stone an English clergyman, presented a paper to the Royal Society, on the beneficial effects of the salix alba or white willow in intermittent fevers. & Dr. Cullen on this authority, & from the similar qualities it possesses recommends it in his Materia Medica, as a substitute for cinchona. Mr. Stone pounded the bark in summer, when it was full of sap, dried it by a gentle heat & gave a drachm of it powdered every four hours. In a few obstinate cases he mixed with it one fifth part of cinchona. Some justly respectable physicians here, says Dr. Cullen made trial of the bark of white willow, & recommended it as a valuable substitute for the Peruvian bark. They have endeavoured especially the bark of the root. (Ibid.)

Class 3 Order 2.

Secale. S. Cereale. Eng. Rye.

Use. Rye is subject to a disease especially when a hot summer succeeds a warm spring; the spurious substance thus produced in France is called ergot, from its resemblance to a cock's spur but in England is called horned rye, spur or horned rye. Bread made of this kind of rye has a narcotic acid taste & produces convulsive fatal diseases, as spasm, extreme debility, & mortification of the extremities. In various periods subsequent to the year 1596 the most alarming & destructive convulsions were occasioned among the poor in France & England by the use of bread made of such damaged grain. Horned rye is said to have been equally fatal to brute animals when fed with it by way of experiment.

Rye is affected by the disease in this country similar to that of the French particularly summer rye in low wet situations. The singular production called ergot is found projecting from under the husks of the spike or ear: it is a long crooked cylindrical substance resembling the spur of a cock pointed at its extremities, of a dark brown colour externally & white within. Some spikes are occupied wholly by spurs, while other two or three only interspersed with genuine seeds of rye.

The medicinal properties of this extraordinary substance were first discovered

the public by Dr. John Harris of Newburgh, in a letter to Dr. Hosack, in which the article is extolled for its power of partum accelerandum. It is now satisfactorily ascertained that it is capable of exerting a specific action on the uterus, of augmenting the power of the organ during the effort of parturition. In lingering & laborious cases it is found to be an invaluable medicine, speedily ending the pains & greatly expediting delivery. For obvious reasons however it is useful to caution against embarrassing this powerful instrument in ignorant or inexperienced hands. In the form of powder it is given from five to ten or fifteen grains; but it has sometimes been found more active in the form of decoction, half a drachm of the seed being put into boiling half a pint of water. One third may be given every twenty minutes until proper pains shall have commenced. A large dose of the decoction or of pulvis ad partum accelerandum will excite nausea & vomiting. No example of ergot having injurious effects has come to our knowledge; but there is much reason that it is capable of producing abortion at any period of pregnancy.

We have now the satisfaction of adducing instruction on this subject from the experience of some practitioners of eminence in our own metropolis. An article in the New England Medical Journal No. Vol. 1. states that it has not appeared to relax the rigidity of the muscular fibres, "but it has almost uniformly increased the efforts of the uterus & expelled the foetus." And also that occasions have occurred authorising a caution of the highest importance in practice. The powerful & continued efforts of the uterus from the effects of ergot, prevent the retreat of the child's head after being advanced, & that the unusual pressure has in some instances occasioned the death of the child. If this circumstance be before hand its due effect, & is due the utmost precaution in the administration of this powerful article. In one case of amenorrhea, Dr. Beck administered one drachm of ergot in decoction, bearing down pain immediately ensued, the suffocation was the next day [illegible]. It has been successfully employed, on similar occasions by other practitioners. However extraordinary it may appear, the caution is from the most credible source that ergot has often proved one of the most efficacious remedies in menorrhagia in all its stages, & moreover it restains in a remarkable manner the profuse uterine flow, following the extraction of the placenta in parturition. — In two instances ergot is stated to have been administered during the early stages of pregnancy. In one case, about four drachms were taken with

240 a few days, the consequence was regular purging down pains resembling the several throes of parturition, & these recurred with every repetition of the medicine yet on examination, the os tinci was not much dilated. In neither case was the natural term of gestation interrupted by the operation of the medicine.

The fact has long been known among our farmers, that rye itself possesses a quality of producing abortion in females of the animal tribe & they carefully withhold that grain from such during their periods of gestation. Ibid,

Class 3. Order 2

Cortium. S. Triticum. Eng. Wheat.

Use. Wheat flour consists principally of gluten, starch, albumen, & a sweet mucilage. It is the presence of gluten that characterizes wheat flour; & on the due admixture of it with the other constituents depends the superiority of wheat flour for making bread. Bread is not only one of the most important articles of nourishment, but is also employed in pharmacy for making cataplasms & giving form to more active articles. An infusion of toasted bread has a deep colour & pleasant aromatic taste; & is an excellent drink in febrile diseases, & in nausea & debility of the stomach; & also in cholera morbus; examples are related of several cases of this kind cured by it, without the aid of any other medicine.

Starch. The fecula of wheat forms a gelatinous solution when boiled with water, which is used as a demulcent. It is thus given as an enema in dysentery & diarrhoea, from irritation of the intestines, & is the common vehicle for giving opium that form. Ibid.

Class 21. Order 2.

Dorsiferi - F. Acuminata - F. Americana. Eng. Ash tree

Use. Ash a well known & useful tree native to this climate; of which we reckon three, the black, the white, & the yellow. The bark of the black ash is easily separated into thin slips by bruising it with a beetle, & is therefore much used for brooms & baskets. The white ash is of two sorts, or varieties, one of which is a stiff, light & durable timber. It is therefore highly esteemed by the farmer, & much used for ploughs, & wagons, & many of the tools used in agriculture. The other sort which grows on rich land. But implements made of this wood should not be much exposed to

either. For it rots, if it be not kept dry. — The bark of the oak is much used
many to make vessels for storing of grain, and it may be light to handle,
fire, the stone, & enclosed Cattle. — The season of felling is for kinds
from November to February. If it be cut in the wrong season the sap, that
it will be destroyed by worms: & turned to what is called powder post. Farmer's

Class 21. Ord. 2.

Cucumis. C. Sativus. Hay. Cucumber.

The Cucumber, a cold fruit, which is pleasant to the taste of most people, & much
used by those who find themselves able to digest them. They are considered wholesome by
pickling. — The method of growing them is simple & easy. They should not be planted
till after indian corn, for the heat degree of potentially destroys them. The seeds
should be put under them which make them grow more rapidly than any other manner
have ever tried. Some steep the seeds & cause them to sprout before they are planted.
But I have never found any advantage in it. It is not amiss however, to wet them
little & cover them with powdered rust. — Mr. Miller thinks the seeds should not
be sown till they are three or four years old. For plants are complete standing
together, therefore when they get to bearing, let they should be thinned to their
the vines should be so conducted as to interfere as little as possible with each other. The
who wish to raise them at all seasons of the year, may consult the gardener's Dictionary
I have known surprising quantities of cucumbers raised from tubs. The method is
to take a very tight barrel, fill it up to the bung with stones then a little
earth over the stones enough to fill the barrel. Fill the lower half with
rotten. Instead of letting it stop thus the earth it should be pared thro a tube
lead in the earth for that purpose as often as more earth is wanted. The bung
should be kept out & the water kept as high as the hole by repeated watering
the plant lying so high will be out of the way of insects, which is a great advan-
tage, & they will not be hurt by drought. The plants should be a little
shaded however with water once in a while of the season from
very dry. Dean James Dictionary, page 95.

Class 6. Order 1.

Allium. A. Schoenoprasum. Eng. Eives or Chives.

Eives or Chives a perennial species of onion of a very small size, seldom growing a foot high. The roots are but little bulbous, & they grow in tufts. The way to make them increase fast is to divide the tufts into very small packets. – Another kind are called French Eives. This increase is more rapid. Both kinds are up early in spring, & are much used in sallads. Ibid. –

Class 12. Order 1.

Cactus. C. Opuntia, Eng. Prickly Pear.

Use. The Cactus Opuntia is very tall erect, & large, & strong enough to bear the weight of a man; some are seven or eight feet high: the whole plant or true stems is formed of great oval compressed leaves or articulations: those near the earth continually increase, magnify & multiply as the tree advances in years, & at length lose the bright green colour & glossy surface of their youth, acquiring a lignous quality, with a whitish scaly cortex. Every part of the plant is nearly destitute of aculea, or those fascicles of barbed bristles which are in such plenty on the common Indian fig. The cochineal insect are feeding on the leaves. The female of this insect is very large & fleshy, covered with a fine white silk or cottony web, which sheds clear moisture or dew, & seems designed by nature to protect them from the violent heat of the sun. The males are very small in proportion to the females & but very few in number: they have each two short feathered wings. The large polypetalous flowers are produced on the edges of the last year leaves, & are of a fine splendid yellow, & are succeeded by large pear shaped fruit of a dark bluish purple when ripe: its pulp is charged with a juice of a fine transparent crimson colour & has a cool pleasant taste somewhat like that of a pomegranate. Some of eating this fruit, the urine becomes of the same crimson colour, which very much surprises & affrights a stranger, but is attended with no other ill consequence on the contrary it is esteemed a wholesome & plentiful diuretic. Bartr.

Class 20 Order 1.

Genus. M. Alba. Sing. Mulberry.

Mulberry, a well known tree the leaves of which are the proper food of silk worm. For this ~~that~~ tree that has a black fruit and a white, (from say the white), according to Mr. Miller the male & female organs of generation are common to one tree but sometimes it will have only male flowers. It would be right to be careful to propagate the tree it might be done with the greatest ease. It may be set by the seeds or by layers, cuttings or slips. If we are not disposed to make use of them for the feeding of silk worms they would pay for the trouble of raising them by their fruit & their timber. The mulberry grows rapidly at least in Connecticut & in the western part of Massachusetts. — Possibly the time may come when we may be glad to make silk for our own use in this country. If this should happen, it will be regretted if there is no tree in the country from which the worms can be fed. They will grow well in dry soil which is moderately rich. From Miller.

Class 10. Order 1.

Genus. G. Margaritaceum. Sing. Common Life everlasting

Use. It appears to me that the plant is a kind of cudweed. - Life everlasting grows about a foot high, the flowers are white; they smell an agreable odour. - An infusion or decoction of the tops is said to be good for ulceration in the mouth & throat. - Catchweed also of the same, has been applied externally for the disorder especially when seated in the neck. (Stearns. American Herbal)

— see my M.M. vol. 1. page 83.

Class 20 Order 2.

Genus. A. Serrulata. Sing. Alder.

Use. The alnus or alder tree is nearly greatly another species of the Canada birch. When it is found to grow in an open situation it has an agreable appearance. Planting series of trees for pasture the alder should be planted to encourage it as it prevents the roots of the soil moist & rather. There are several species of alder peculiar to the United States. The bark is used by tanners & leather dressers. It dyes yellow; & with a little copperas a yellowish gray, very useful in the dumbents & shades of black in tapestry. The shoots cut in March will dye a crimson color; & a fine tawny if they be dissolved. The fruit dyes yellow, a dye the color of snuff. The catkins dye green. The bark is classed as a drain for blacks; an ounce of it dried & powdered, taken in the quantity

lbs of a pound of water with an equal quantity of logwood with solution of copper, tin, & bismuth, six grains of each, & two drops of solution of sulphate of iron (copperas) will dye a strong deep Bouc de Paris, or Paris mud. The leaves have sometimes been employed in tanning leather. The whole tree is very astringent.

The white tree thrives in swampy ground. The wood of this tree is in great estimation in Europe for machinery. The cogs for mill wheels formed of it are deemed superior to other. It is commonly used for bobbins. It resists water powerfully, & hence is of great value for pump trees, pipes, drains, conduits to reservoirs, piles under water, & other kinds of wood work, kept constantly wet. In Flanders & Holland it is raised for this purpose. —— The alder is highly useful as a medicine. I have heard of a well authenticated instance of the efficacy of an infusion of the cathartic, or cancell. taken internally, having effectually cured a boy of sore eyes, which apparently proceeded from a scrofulous cause, after a variety of medicines had been used without effect. A decoction of the bark of black alder & dogwood (cornus florida) is a common & successful remedy in the United States for intermittents. The root of the liriodendron tulipifera, or tulip poplar tree, & of the sassafras are sometimes with the alder & dogwood. Medical gentlemen who practice in the country would render a service to the public by stating the proportions of each remedy, which prove the best effect. Dom. Inc.

Class 14. Order 1.

Tetrandria. 1. Monogynia. 1. Pubescens. Ang.

Class 10 Order 1

Andromeda. A. Paniculata. Ang. White bush. A. Calyculata. Leather leaf. Common. Indian physic stem. Wicked.

Use. Six common genus, many species of which abound in the United States. They occupy a similar soil & situation of the heaths in the old continent. The white berry is the most common trivial name in the United States for all the species, since they bear no berries, & resemble the whortleberry bushes. They are all hardy flowering shrubs. The A. paniculata of Walter, or Indian physic stem, is the most beautiful. It is an evergreen. The Canadian Indians set a high value upon the

feet long. Dr. Rafinesque informs me that a decoction of the Anemone or wood anemone is used as a wash in a diagnosis of the fall attack in intermittent fevers, which is common among the negroes of the southern states. The plant is there called "Tickle" & is suspected to be poisonous & therefore dangerous to sheep, no doubt be taken from the information of our farmers. Ibid

Genus A. thalictroides. Sp. Class 13. Order 13

Common name. The Anemone or wind flower.

Anemone or windflower, is the name of a plant chiefly distinguished on account of its beautiful flowers which by the Greeks were supposed not to open till the wind blows. Whence it has received its original name. Linnaeus enumerates 12 species. Anemone thalictroides grows near the city of Philadelphia in wood & deserves to be admired for its elegant simplicity. Ibid.

Class 11. Order 1.

Genus. A. Canadense. Eng. White-snakeroot. Wild ginger root.

Loc. This plant in a moist shady situation, & may be increased by parting the roots in autumn. Too much wet will rot the Canadian root in winter. The juice of the fresh root is emetic. The powder of this plant I have known to answer very good effect in cases of gid dini. Sometimes by too much gathering. It was used as a snuff. It seems is an active plant, & deserves further trials. Ibid

Class 13 Order 13.

Genus. G. Spiralis. Eng. Purple Orchis. Bate Orchis.

Loc. It grows in meadows & groves of a humid soil. Its flowers appear in July. The root of this species, tho of inferior efficacy have also been employed in medicine, as well by farmers. Ibid

Class 20 Order 12.

Genus. F. Tenuifolia. Eng. Beech.

It is a large tree growing in many parts of America. The fruit appears in autumn. The expressed oil of the nuts is called anthelmintic. The wood burns well & yields a good potash. In Silesia the ashes of beech are used in the leg — Captain Carver informs the Indians from a scar on a member of their tribe, that it has been injured by frost. & Dr. Rafinesque of the expressed oil

284 of the seeds in an ounce, morning & evening, in sight of most agreeable flavour.

Class 5 Order 2.

Beta. Vulgaris. Red Beet. Beta Cicla Scarcity.

Use. This is a plant of which there are four species. — Beta vulgaris the red beet. The roots of which are large & of a deep red colour. It is worthy of remark that the larger the roots grow, they are more tender, & the deeper their colour the more they are esteemed. The varieties of this species are the common red beet, the turnip rooted beet & the green leaved beet. — The Cicla which grows wild on the bank of the Tagus in Portugal. It is originally a small white root, but there is a variety of it called by the German Rhabarber or the beta alba of botanists, the culture of which cannot be too strongly recommended. The stalk of the latter grows to the height of seven or eight feet & the root weighs from eight to twelve pounds. This variety of the root of scarcity is the true Mangel-wurzel which some years since excited much attention in Britain, tho' there is reason to suppose that other species of the beet have been mistaken for the beta alba; the root of which is white, juicy, & streaked with red fibres. It is sown like cabbage, & to prevent injury to the fibres of the root, the young plants must not be pulled but dug up with a spade; they should then be transplanted on the same day either in rainy weather or after sunset, on a rich well manured & well pulverized soil in rows from nineteen to eighteen inches asunder. Sow thin, & cover the seed an inch only; it will continue in the ground a month. In transplanting the roots are not to be shortened but the leaves cut at the top. Thrust at the plant with a dibble so that the upper part of the root shall appear half an inch out of the ground. The horses will not arrive at perfection, unless the plant be twice hoed & stripped of its superfluous leaves every fortnight or three weeks. — Sugar considerable quantity has been obtained from the different species of beet. The beds of beet must be 3 feet of a yard wide & the plants six or eight inches apart. When they come up about a finger length & in the ground hoed & transplant them into the beds. — An important discovery lately been announced by Professor Scheer of Vienna, & which promises great service in domestic economy, especially when sugar is scarce.

d from experiments that such roots afford an excellent substitute
malt, if they be deprived of the greater part of their juice by pressure, then
ed, & treated in the same manner as grain intended to be used for malt
ne. The beer thus brewed was found to be perfectly wholsome & palatable,
ing little inferior to that prepared from malt. Besides the juice obtained from
ne excellent roots may be advantageously converted into sugar.

According to Mr. Vocque the white but is a most excellent food for cows,
but wants of moving them is to move the plant & give it to them fresh.
ing the summer. — The red but is possessed of mild aperient qualities
& affords but a weak nutriment to the human body. Hence it should be
ten for supper, by persons of a costive habit; but, tho' it be easily digested
ere is sometimes attended with flatulency, for which reason it would be
ore wholsome & nourishing to eat the but with other mealy roots, such as
tatoes, or with those of an aromatic nature, for instance, parsley, celery &c. &c.

Class 5. Order 1.

Cimbinula. C. Pitundifolia. Ang. Round leaved bell flower.

re. A genus of plants comprehending 80 species — C. Rotund. produces blue or
ite flowers in August & Sept. Leaves & stems have a hot taste, flowers are
ishly, & they are likewise useful in dyeing. The milky juice of the white flow
is said to impart a beautiful green color by the addition of alum. The juice
the blue flowers alone has been used for painting & writing. & Dandelion
to treat with these flowers the liquid food & cloth of a fine <u>orange</u> colour have
g previously immersed them in a probably diluted solution of minerals.

Class 10. Order 1.

Vaccinium. V. Vitis idæa. Ang. Bilberry.

re. The fruit of the bilberry is acid & cooling. In Sweden it is eaten in the form
a jelly. The green leaves of this species might also be advantageously used instead
tea, from which they can scarcely be distinguished. — The fruit of bilberry are
ringent, & their juice mixed with sugar & fermented may be converted into
ind of wholsome domestic wines. Ibid

Class 5. Order 1.

Convolvulus. C. Arvensis. Eng. Field. Bindweed. Small Bindweed.

Use. The arvensis or small bindweed is a common plant in fields & hedges. But particularly troublesome in gardens of a gravelly soil. As the roots of this plant are buried in wet & grows till deep into the ground, & injure the growth of corn. They ought to be carefully extracted & transplanted in the shady side of rivers & lakes, when the growth has ceased & the plant. Nor are unacquainted particularly to the flower of the convolvulus, yet it is eagerly eaten by black cattle & sheep. (Lin.)

Class 20. Order 13.

Betula. B. Alnifolia. White birch. B. Lenta. Spicy birch. Black birch.

Use. The white or common birch tree is not of a large growth, but when allowed in a favorable soil & good situation, it rises to a considerable height. There is a degree of elegance in its general appearance in summer, & the bark in winter is generally variegated with white & white. It is easily cultivated by the usual methods. But when raised from seed the young shoots of the birch should remain two years in the seminary & then be transplanted in rows. They may also be propagated by layers, for this purpose a sufficient number of plants should be placed at a distance of three yards from each other in a rail circle, & when they have been formed by the shade of the following year, the shoots produced from shoots, they may be layed to within a foot of the ground to form the shoots in consequence of which they will be covered with verdure in the following summer. In autumn the young shoots may be pulled near the stole, & the tender shoots layed near the end. These may then be taken out, & become fine plants the following autumn.

Lamarck remarks in the 2nd vol. of his natural history that the flower of the tree when boiled in water affords a good substitute for soap. — Besides the utility of the sap or juice of the birch tree in affording a delicious wine, it appears from the experiments of Humboldt that sugar may be obtained by inspissating the juice of the variety called black birch. Such sugar however is not of an agreeable quality but lay in quantity than that prepared from the cane. The wood of the birch is of very extensive use. Cooper, Cellar, or pow

The [illegible] comes this bark with its [illegible] & the [illegible] [illegible] Dr. [illegible]
[illegible] portable bowels, [illegible] &c. It is also used for [illegible] [illegible]
[illegible] The [illegible] and the [illegible] bark [illegible] [illegible] [illegible] [illegible]
[illegible] & the [illegible] & [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] in stripping, & [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] the [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] that the bark is better for tanning when dried, than in a fresh state. For this
[illegible] fore, it is cut into small pieces & boiled for half an hour in pure water, & the
[illegible] hides are kept in it, while it boils. The ley is again boiled on the two
[illegible] ing day, & the tepid [illegible] of the water is often replaced, after which it is [illegible]
[illegible] in the air. Leather thus prepared is said to be water proof. The bark of the birch
[illegible] a yellowish color to wool, which no [illegible] can [illegible] [illegible] [illegible]
[illegible] in the spring months, are not so proper for dying as the autumnal barks, [illegible]
[illegible] produce a greenish tinge, but the latter afford a beautiful yellow color.
[illegible] have also been used in the dropsy, both when applied externally, or in the action
[illegible] by the mouth. — The fungus which grows on the trunk of the birch tree is a very good
[illegible], when boiled in water, beaten & dried in an oven it makes excellent touch wood —
[illegible] and for picking wool & brooms, as well as by bird-catchers, who use them
[illegible] the bird lime. — Birch wine was formerly in considerable repute as a remedy in
[illegible] the diseases, but is disused in modern practice. It is a rich cordial wine.
[illegible] to Dr. Cadham, an excellent remedy for [illegible] & the [illegible] we shall
[illegible] our readers with the method of preparing it: to be have no experience of
medicinal powers. — The juice of the sap of the birch tree should be extracted
[illegible] the beginning of March when the buds begin to swell, & before they have
[illegible] their leaves. An incision or hole must be made in the trunk, almost as high as
[illegible] the tree, some branch of a well growing tree, or it, in the [illegible] [illegible]
[illegible] put down the ground, a hollow tube, & then [illegible] [illegible] [illegible]
which the sap will flow similar to distillation. By applying a little wax
[illegible] the orifice the wound will heal & the bark afterwards close. Some persons [illegible]
[illegible] that the sap drawn from the trunk of the tree is not so good as that
[illegible] it, in the branches. To prevent the sap from forming, till a sufficient

generally so prepared the bottle in which it is collected ought to be immediately stopped — One of the best methods of making British wines is, following to every gallon of the liquor, add a pint of honey, or a pound of sugar, stir the whole together, & boil it for an hour with a few cloves, & a little lemon peel, at the same time skimming the rising impurities. When cool, a few grains full of yeast (or D. be added) to induce a fermentation, & after the yeast has settled, the wine should be bottled up & kept for use. If this liquor be found to ferment after bottling it becomes obvious that the common stone bottles in which it is kept frequently burst. (Ibid.)

Class 13. Order 13.

Rubus. R. Idaeus. Rasp. Garden Raspberry. R. Villosus. High Blackberry. R. Fruticosus. Dewberry. —

Use. R. Idaeus. Rasp. Berries are a delicious, moderately cooling & corrobrant. They quench thirst, & are not injurious from the natural secretions, & stain from the viscera: they also dissolve tartarous concretions of the teeth. — An agreeable syrup & a wine is made of their juice. Some make them into sweetmeats with sugar, & they are often eaten with milk. — Both the fruit & leaves have formerly recommended in vomiting, dysentery, sore throat & nasal haemorrhagia. (Stokes.)

Blackberry. We have two species. The fruit of which in general is called blackberry. The fruit which we designate by the title of R. villosus is a robust plant which grows in a much more loose soil with and bears shoots 10 or 12 feet in length, very irritable, somewhat arched or angled, armed with strong recurved thorns; the root sends up shoots spring out of the earth, they flower, & bear fruit in corymbs, or clusters, which terminate like the branches proceeding from the axils of the leaves; the fruit is oblong, above an inch in length & of an inch diameter, of a beautiful shining black colour, of an agreeable taste, which would prove a valuable astringency.

The second species R. fruticosus is commonly known in the name of Dewberry. The lower fruit not growing so high as 10 or 12 above the preceding species; its stems are weaker, and from the root & bear down towards the earth. The extremities often trail on the ground & taking root in the earth, form new plants, & in a little time spread over large tracts of ground. The species keeps high hilly land: the fruit is large, oval (round) & black (ripe, ripe) with a flavour delicate or sweet like the Damascene plum. Juice & the pulp is sweet & kind, & leaves a pleasant astringency for calling it gently forward to the same

ly men of Heathens & Christians, when on the Tea found it Heal as
it said in the United States for the general good of the Union, & this
e spoke highly in praise of the medicine.
bus Sambucus. Tribe 5. The Professions with the Leaves of this Plant & the Bloom, which
en fermented is a pleasant beverage. Wine & vinegar made of the fruit of the
ne. & a syrup & jelly prepared from it are used as gentle stimulants. The berries also
used to colour dying. (Dom. Rec.)

Class 5. Order 3.

ophylla. S. Trifolia. Eng. Heath or Heather.
his is a plant containing two species, the former indigenous in Britain & the Corsica
from Spain & Heath with a native of Virginia. — This shrub affords an oil which
ight be employed for lamps, but the trouble of refining it is too great. The wood is
s & used on the continent for various domestic purposes. & the flowers are much frequented
by bees. Ibid.

Class 13. Order 13.

ne. R. Helianora. Eng. Sweet briar.
his is a well known indigenous plant found in hedges & on heaths. It grows
t height of five or six feet having green branches armed with prickles. The several
species are the common single flowered, semi double flowered, double flowered & yellow
flowered. This shrub deserves to be cultivated in every garden on account of the aro-
matic property of its leaves. The best place for planting it is the borders of groves
& walks, where it will profusely emit its refreshing fragrance. The young branches
& the most tender leaves are a rich addition to the odour of nosegays & bright posies. The
flowers of this shrub are constantly visited by bees & the leaves are used on the continent
in tea. (Ibid.)

Class 14. Order 1.

elissa. M. Nepeta. Eng. Calamint.
ne. An indigenous species of the balm. — The calamint, as well as the other species of Me-
ssa is now only ranked in medical practice among the mild carminatives. Infusions of the
aves in water have an agreeable taste but a weak taste, & when inspissated they
ave a considerable quantity of a bitterish extract. (Ibid.)

Class 3. Order 2.

Calam. C. Arundinacea. Ans. Varied grass.

The C. Arund. or Canada Reed grass, or Indian Grass is occasionally seen in our gardens on account of its beautiful stripes. It is of considerable utility for thatching houses or stacks, & this plant is more durable than straw. In the north of Europe the stalks attain the height of from two to eight feet, it is mowed twice a year & given to cattle as a nutritious & wholesome food. We are therefore of opinion that this species might also be successfully cultivated, for the same purpose, in Britain. (Pl. 2)

Class 12. Order 3.

Capra. C. Nathan. Eng. Capers. Fr. Câpre. Spurge capers.

Obs. This plant delights in the crevices of rocks, old walls, &c & their foliage, in a horizontal direction. In the warm parts of Europe it is frequented by cats, & the Indians with wings &c. are annually sent from Italy or the Mediterranean. Capers are esteemed to excite the appetite & to assist digestion & to be useful in agues & spasms, in obstruction of the liver.

Mr. Jefferson in a letter to the Committee of Correspondence of the Agric. Soc. of S. Carolina dated Paris July 1790 recommends the introduction of the capre into the southern states. He observes "the capre tho a tender plant, is certain in its produce; because a mound of earth of the size of a cucumber hill thrown over the plant in the autumn protects it effectually against the cold. When the danger of frost is over in the spring they are to be uncovered, & the culture begun. Men in a great deal in the neighborhood of Toulon. The plants are set about eight feet apart, & yield nine years with and the about two pounds of capers each year on the spot about sixpence sterling the pound. The organic little culture, & this may be performed either with the plough or hoe. The principal work is the gathering the fruit as it forms. Even plants must be picked every other day from the last of June until the middle of October. This is the work of women & children. This plant does well in any kind of soil, whether dry, or even in wells, where there is no soil, & they last the life of a man."

Class 18. Order 3.

Anthemis. A. Cotula. Eng. May weed. Fetid chamomile. Nathan.

Obs. It grows in cornfields, on road sides, & borders of dung hills; it is a tow

one seed in filled land, very conspicuous & disagreeable to have & out. Neither by either horses, cows, sheep, goats or swine. But toads are said to be fond of it & its common acrimony & frequently blisters the skin of grapes. Notwithstanding its very pungent taste, it has often been used with advantage in diseases peculiar to females. — Beckstein. — In dyeing a decoction of the whole plant when in flower imparts a permanent citron colour to wool prepared in a solution of bismuth. Dambourney.

Class 21. Order 2.

Genus. C. Americana. Am. Chestnut.

The character of the chestnut tree is rough the stem & the bark cracked that the rows are disposed in cylindrical collars. The leaf is oval, serrated & smooth. The capsules are round & set very thick with long prickly spines, containing from two to five, but usually three or three nuts, filled with a white kernel. — Chestnuts especially the smaller kind form an important article of commerce in Italy & in the island of Corsica which latter alone exports annually such quantities as amount in value to 100,000 crowns. The peasants roast them among cinders & eat them with butter & salt; the poor live on them & make chestnut bread. The common fruit is also used in several articles of confectionary, as a substitute for coffee & in the preparation of chocolate. — All the species are palatable & yield a wholesome nutritious food. yet when used in abundance they are difficult of digestion & require therefore to be eaten only by the healthy & robust. They promote the secretion & accumulation in the bowels. They require the aid of salt in a considerable proportion, but the addition of the rendes them still heavier, & tends to retard rather than to accelerate their conversion to chylous matter. — This tree is highly valuable for many purposes & ought to be carefully attended to by the people of this country. The superiority of the timber over other for durability is well known. The tree splits easily, & hence is used for fence rails. The chestnut tree is very hardy & yet a quick growth, & therefore should never stand long the little tree is in a growing state. If cut while it appears only six inches, it will be found to have very little sap in proportion to other trees. The nut is the usual & in some places almost the only food of the common people of Italy, Savoy & France not only boiled & roasted, but also in puddings, cake & bread.

[illegible] prepared for planting the nut with the husks in the spring. The best nuts for planting are such as are brought from Portugal & Spain, as they are finer & sweeter than those which are usually found in the Philadelphia market. The direction to plant them in the husks is given in consequence of the destruction of them, which happens in New Jersey, where they were planted perhaps, generally separated from fruit trees. The nuts of the potato, must be brought over in boxes of earth. In setting the nuts, make a hole with the hoe about four inches deep, & two inches distant with the eye of the nut, then bow the earth over them with a rake, & make a second drill at about a foot distance from the former, proceeding in before, allowing them room in a bed, with an alley between them three feet broad for conveniently cleaning the beds keep the ground clear of weeds, & in two years remove the trees to a nursery, at a wide distance, & three years afterward, transplant them into the places where they are intended to stand. In Portugal & the countries there, they graft upon wild trees bearing the largest & finest fruit upon stocks ~~up~~ raised from the nuts. More profit from a nut for a tree. — Another way of propagating the chestnut, is to enrich the stump of a tree recently felled with a fence. Shoots will come out the first year, & grow to be trees in two seasons. — Chestnut trees, but partially those bearing large fruit, ought to be preserved with religious care. No more certainly productive legacy could be left by a parent to an infant than land planted with an hundred thousand chestnuts. — Mr. William Prince of Long Island, informs the editor, that the Spanish or Portugal chestnut succeeds well in the United States & produces fruit in about seven years from the seed. It grows more rapidly than the common chestnut; the fruit is more than four times as large, & for boiling or roasting is generally preferred. — It may be budded on the common chestnut, but being difficult for the art to overgrow the stock. It is best to raise it from seed, which if the tree from which the trees are taken do not grow too near the common chestnut will produce the genuine nut. (Dom. Eng.)

[illegible]

[illegible] Mr. Cadwalader's most original chemist or [illegible] made the fan his [illegible] a [illegible]

the plant growing in orchards, hedges, & waste places in generally [illegible]
Naugh found in the counties of Westmorland, Cumberland, Lancaster, & Worcester. It is perennial & flowers while flowers which blow in the month of May or June, & rises of an agreeable
tile taste. The whole plant has an aromatic scent & its seeds are used in the north of
land for flavoring & perfuming oat flour & puddings: they also yield an essential oil.
ilar to that of Caraway seeds. The fresh leaves & stalks of the sweet cicely
ay be used a fine citron yellow dye when prepared in a solution of bismuth as
ated by Dambourney. Ibid.

Class 5. Order.

Longifolia. L. Canadensis. L. Officinalis. - Arg. Sweet Sarsaparilla

e. Stems the great or wild or meadow sweet a native plant growing on moist pastures
ically on a marly & calcareous soil. It is hardy, erect plant & grows from two to
et high branching toward the top & terminated by thick and large panicles of flowers of
a brown colour which appear in June & July. This plant should not be confounded
th the ~~[illegible]~~ Potentilla Filipendula or Filipendula which is a very different
us of plants. The great or wild sweet, has been supposed to possess the self-
ty. Doyle dyed wool with linen or cotton in a decoction of the dried flowers
a fine colour with a greenish shade by the addition of alum, & a dark blue with
ron assumed a beautiful green by adding a solution of tin, & a deep black colour
dropping into the liquor a solution of Sulphuretted Recorder's Recreation Ibid.
The wild sweet is used in tanning of leather as a substitute for oak bark & the plant
is relished by cattle especially by sheep. Ibid

Class 13. Order 13.

Potentilla. P. Anserina. Wild tansey. P. Argentea. Silver leaved Cinquefoil.

Potentilla. a genus of plants comprising 55 species. Argentea. silver cinquefoil grows in
meadows & pastures in a gravelly soil & flowers in June. The whole may be used for tanning
& dyeing black colour; as it is not touched by cattle. Recreation

Class 3. Order 1.

Lvis. L. Sylvestris. L. Portensis. Arg. Clary. Wild Clary.

e. It is biennial & flowers in the month of June & July; & its leaves are slightly aromatic.
hen pricked in excite for a few moments it buds acquire a pomelagnum smell, somewhat similar
e to the odour of frogs. Recreation observes that this plant should be used as a substitute for hops
d to give a pleasant flavour to beer & wines, but at the same time renders them more inclined

 toxicating & pernicious to health. It may, however, be more usefully employed in tanning leather, & dyeing a permanent dark brown. — Both the leaves & seeds of this plant have a warm bitterish pungent taste, & a strong, tho' not an agreeable odour. They are principally recommended in hysteric disorders, & in flatulent colics.

Clary Water is composed of brandy, nyas, clary flowers & cinnamon in which a little ambergris is dissolved. It is also prepared with brandy, juice of cherries, strawberries, & gooseberries, cloves, white pepper, & coriander seeds, the whole of which are infused, sweetened & strained. This medicated water is said to assist digestion, & to be an excellent cordial but we have reason to apprehend that it is, like all the cordials, calculated to increase the catalogue of tipplers, rather than promote the purposes of health. Ed.

Class 17. Order 10

Trifolium. 1. Pratense. Eng. Clover. Red Clover.

Use. Clover is a species of Trifoil or Trifolium L. a genus of plants comprising 55 species of which 16 are indigenous in England.

The pratense or common (red) clover is frequently found in meadows & pastures. This species thrives best on a firm heavy soil & is raised from seed which is usually sown between the month of February & April in the proportion of ten or fifteen pounds per acre. If it be often sown on the same land, the crop will fail: it should therefore be changed for turnips or beans.

Common (red) clover is usually sown together with wheat in the spring as a cover, with barley & oats: but experienced farmers generally prefer wheat; as in dry seasons the clover frequently overpowers the oats or barley; & if it be sown late, in order to obviate this evil it often fails & the crop is lost for that season. It is also mixed with rye-grass, & if sown when the latter is beginning to flower, the love grass is considerably increased & a great quantity of excellent grass is obtained. Another advantage arises from this expedient; for, however severe the frost may be the clover will be completely screened from its pernicious effects by the rye-grass.

The common clover is in flower from May to September, & produces seed which are known to be ripe by the stalks & heads changing their colour. Cattle, sheep & hogs are exceedingly fond of this species, & frequently eat it so closely as to become hoven or blown. This disorder, however, may be prevented by constantly moving them

at the field. When turned in, so that the first bell may wind round the
ew, before the next be delivered. Or if cattle be turned into clover fully dry, they
th, it is said, receive no injury by eating too freely of it as it is herein only in
early state. Should they nevertheless be attacked with that dangerous bloating
y may be relieved by administering the remedies from Dent under the article Cattle
ing 1st volume — It deserves to be noticed that the introduction of the
bella plant into modern husbandry has been attended with numerous & impor-
t advantages. Since that period the new system of stall feeding slaty, it origin-
lly insignificant farm on the Continent of Europe, have since been converted
to valuable estates. For as this species of clover is annually productive of three
four crops for two years at least, it is generally ploughed in, after the last
owing in autumn, & wheat or rye immediately sown on the land without
y other manure, except what is derived from the fertilizing roots of that
egetable. Sometimes however gypsum is scattered on such fields during winter.
n Pennsylvania the operation is generally performed during the month of March
April. — In Sweden the heads are employed for dying wool of a green
lour, & if mixed with alum they yield a bright, if with copperas a dark purple
r John Rehens White clover abounds in meadows & pastures. —
ds in right hand, where it will thrive luxuriantly, & frequently on
the old clover, rye grass or barley & is in flower from May to September. It produces the
ulent hay on dry land, especially when mixed with red clover & rye grass, & possesses
n advantage over the common clover, that it will admit of being eaten. Horses
n & goats eat it, but sheep are not fond of it, & hogs totally refuse it —
White clover (whether wild or pastured) is one of the most valuable grasses for cattle
it is evidently a natural grass of the country & uniformly appears in our meadows
ithin 3 of the city, when closely cropped by sheep. A gentleman who has travelled
ch of the North Indian country, says he has seen fields covered with this grass
The most beautiful white clover powerfully attract the bees all summer but it
ainly in the months of July & June that the animal is collected & stored in hives
It is observed that clover honey may be easily distinguished from every other flower in the hive
t clover when mixed with timothy or glumpoa (Poa trivialis) makes excellent hay. (Hay)

Nasturt. S. Palustris. Eng. Cresses. Class 5. Order 1.

Use: It grows in the beds of rivers, ponds & ditches, & is chiefly found in the eastern part of England. It is perennial & does not ripen its seeds but rarely, flowers in the months of June & July. Hogs eagerly devour the roots of this species when fresh, but will not touch them when dry. They are also eaten by goats & horses, but refused by cows & sheep. Ibid.

Class 13. Order 5.

Aquilegia. A. Canadensis. Eng. Common Columbine

Use. It is a native plant growing in dry woods & thickets. It is perennial & blooms in July. The beauty of its flowers & its numerous varieties, both in shape & colour have introduced the plant into gardens. It is eaten by goats, but sheep are not fond of it, nor is it relished by cows, horses & hogs. Ibid.

Class 9. Order 1.

Euphorbia. E. Myrtifolia. Eng. Common cotton grass.

Use. This grows chiefly on moorish bogs in the county of Stafford, in Birmingham heath & near the port Rothdin, in the Island of Skye, in Scotland. The plant is very fat to sight & cattle in the earlier parts of the spring, before the other grasses are sufficiently grown. The poorer classes of people stuff their pillows with the woolly down of this plant, & also employ it in making wicks for their candles. Ibid.

Class 12. Order 5.

Syren. C. Coronaria. Eng. Lead apple

Use. This is an indigenous plant growing in woods & hedges: it flourishes both in dry situations & in shady places, but is open exposed situations or on boggy soil. Its flowers are white & appear in the month of May.

This is the parent stock from which the numerous varieties of the apple are obtained, & on which the better sorts of them are grafted; because its roots are neither killed by frost nor eaten by field vermin, grass & even corn will grow beneath it. The wood of the root is totally hard, turns black on the earth, & then makes it very fine, fragrant & polish which makes it very durable. The acid juice of the fruit is common termed vinegar & is much employed in rural domestic, & in Thrace a very astringent & wholesome. This fruit is eaten by horses, cows, sheep, goats, & particularly by hogs, which are extremely fond of it.

[illegible] cultivated especially in our gardens & their fruit forms an abundance of food for deer, in the latter part of autumn when grass begins to fail, & in winter they browse the branches, which are cut down for that purpose. As this species readily attains a growth, it deserves to form a part of every plantation. & we have only to regret that it is not more generally cultivated, as it will in a short time amply compensate the trouble & expense bestowed in rearing it. In dyeing the bark of the cotton has been used for extracting a yellow & especially a cotton colour. Dambourney relates that a dry drawing of this wood impregnated a fine chestnut brown to wool prepared by a solution of bismuth. Ibid.

Class 15. Order 1.

[illegible]culus. R. Florentinus. Ang. Water Crowfoot.

grows in ponds & ditches, where it produces white flowers with yellow spots on the base from May to July. In the 5th vol. of the "Transactions of the Linnean society" we are informed by Mr Pettiny that the villagers in the vicinity of Ringwood, on the banks of the Avon, fatten their cattle almost entirely with this plant which is devoured with such avidity that it is deemed unsafe to allow them more than a certain portion. The cows thus fed continue in excellent condition, & yield a sufficient quantity of good milk. The animals are fatted by the Water Crowfoot that, enabling the scanty pittance they procure on the adjoining heaths, fine cows & oxen have not consumed more than half a ton of hay in one year. For, likewise, of this vegetable, on which they are naturally indifferent, as also of Dr. P. it is not necessary to allow them any other food, till they are put up to fat.

Class 6. Order 1.

[illegible]cissus. N. Pseudo-Narcissus. Ang. Daffodil

the indigenous perennial plant, growing in woods, meadows, & the sides of hedges, which are abundantly in the north & west of England. It produces large, yellow, ill scented flowers which appear in March. Beckstein observes that the dressing of the root affords a [illegible] vector. Dom. Eq.

Class 18. Order 2.

[illegible]ellis. B. Perennis. Ang. Common Daisy.

[illegible]. The leaves of the daisy, tho' slightly acrid, may be eaten as early spring sallad, or [illegible] the spinach, its roots have a pungent bitter & are in high repute abroad as an excellent diuretic, aperient, cordial & antiseptic medicine; yet no attention is paid to them in this country except what it claims from the hearts of its flowers; on account of which

it has been introduced into Sweden. It is refused by horses, sheep & cows.

Mr. Pechlin a respectable German naturalist, mentions a curious fact relative to the action of the common dwarf. He says in a note. "I am acquainted with a very skilful & experienced physician who has completely cured several consumptive persons with the flower buds of the Bellis perennis, by stuffing young chickens with them buds without any other ingredients; then stewing them in broth or beef tea or both adding a little fresh butter, & allowing the patient for three weeks no other food but the medicated dishes thus prepared. At first it appears a delicious repast." We can hardly conceive we have had no opportunities of ascertaining the efficacy of this preparation, by the test of experience. But nevertheless we believe that in so desperate a situation as that of pulmonary consumption, or other species of atrophy, unattended with violent febrile symptoms, it will deserve to be opportunely & fairly tried. (Ibid)

Class 3. Order 2.

Lolium. L. Perenne. Red darnel or Ray grass.

Flowers in red. Lea - dry pastures, it attains the height of two feet. & flowers in June.

It is a valuable grass upon dry, chalky or sandy soils it deserves to be cultivated especially with clover; it springs earlier than the other grasses; thus supplying food for cattle at a season when it is most difficult to be obtained. But tho' it is easily eaten when young it is too dry & hard when converted into hay for stuff. Mr. Swayne says in his "Gramina" a most valuable publication for practical farmers, who wish to obtain a complete knowledge of the different pasture grasses; that the common ray grass is probably by frequent sowing degenerated from its natural qualities, & that it was in many respects superior to that growing naturally in our best meadows & pastures. Mr. Pepe, an enlightened agriculturalist has lately raised a variety of ray grass from seed saved in old pastures, & has now multiplied it to such an extent as to sell annually a considerable quantity, at the price of 10/6 per bushel. It has by the most competent judges been proved to be infinitely superior to the cultivated ray grass & he has sufficient demand for his whole produce... The wild darnel is eaten by horses, cows & sheep: but yet do not relish it. Ibid.

Class 8. Order 1.

ca. 2. Palustris. Fine. mother wort. Moor wort

is a low shrub, & native of the United States, growing in most marshy places. It seldom more than four feet high spreading into a bad, with many erect & very slender branches. The flowers are produced at the extreme ends of the former year's shoots, in numerous whorls, & make a tolerable appearance. The flowers which appear the latter end of March before any perfect leaves are of a yellow colour. The bark uncommonly tough, yet the encircled wood is very brittle. It is highly valued by the Indians, & used in the place of cords. The plant according to the information of Mr. W. Bartram, occupies an extensive range of territory from Canada to Georgia.

Class 6. Order 1.

Allium. 1. Ascolonicum. Eng. Shallot. Eschallot.

It is a native of Palestine where it has been introduced into our kitchen gardens. It is raised from seeds, which are set about the end of February in beds, or furrows at the distance of about three inches from each other. Towards the end of June the stems are dry, & in the course of another month, the plants are pulled out of the earth; when they are exposed to the air to dry, & afterwards preserved in some dry place. The roots of the eschallot are very pungent, have a strong but pleasant smell, & are preferred to onions as ingredients in highly flavoured soups & gravies. They are also pickled, in which state considerable quantities of them are consumed in the East Indies.

This plant when mixed with vinegar, oil & honey, is said to be an excellent remedy against the bite of a mad dog, we doubt, however, the efficacy of such an application. It is also recommended as an excellent exhalic, especially when inhaled thro' the nostrils; but its most beneficial properties are those of creating an appetite, & expelling foul air. (Ibid.)

Class 3. Order 2.

Anthera. 1. Elatior. Eng. Tall Fescue grass.

grows in boggy meadows, & at the side of wet ditches, where it often attains to the height of four or five feet. It is perennial, flowers in the month of June or July, sometimes twice in the year, & makes excellent hay, but requires a rich soil. It is eaten by horses, cows, sheep & goats. (Ibid.)

Cap 18. Bds 3.

Matricaria. M. Chamomilla. Eng. Wildmomil Feverfew.

It grows in corn fields, damp hills as well as on road sides, & is in flower from May to August. Its properties are similar to those of the common chamomile. It is eaten by cows, goats, & sheep, but not relished by horses & hogs. Healthy infusions according to Pomer the flowers of this species of feverfew afford a fine yellow for pigment which may be rendered more permanent by the addition of some cream of tartar & gypsum. Schiffer another German chemist informs that a decoction of these flowers imparts a beautiful yellow colour to silk & a decoction of tin, acidulated with cream of tartar be gradually dropped into the liquor till it acquires a deep yellow tinge. Berthollet holds on this occasion remarks that pure water must be employed, which does not precipitate the solution of tin, & that the dyeing bath should be kept in a hot, but not in a boiling state. (Ibid)

Cap 3. Bds 2.

Alopecurus. A. Pratensis. Eng. Meadow Foxtail grass

It is perennial, grows in meadows & pastures & flows in the month of May & June. It is plant thus naturally in moist soil only. It affords the best grass that can be sown on low meadows or in boggy places which have been newly drained. It ripens early & are easily collected. Although the awns on it are said to acquire a coarse fleece yet it furnishes a most grateful food to cattle but as the larvae of the species of flies devour the seed to so great an extent that in many fields scarcely one can be found perfect its cultivation is not the procedure. Pure insects are very minute of an orange colour & are the prey of the limax cinctus or field bug which in turn are peculiarly fond of eating the heads of grass.

Cap 5. Bds 2.

Panax. P. Quinquefolium. Eng. Ginseng.

Use. It is indigenous in North America. The dried root of ginseng has a mucilaginous taste & smell of liquorice, but accompanied with some de

of bitterness, & a slight aromatic smell, with very little odour. The 29
men recite extraordinary virtues to this plant, & consider it as a sovereign remedy
almost every disease to which they are subject. To prove how very
efficacious it has occasioned in Europe, a Scotch lady, often used as a tonic, antispas-
modic & stimulant, in doses from 20 to 30 grains in powder. Nor do we believe that it
would give cause for any peculiar prejudice, excepting from its nauseous
taste & loathing, which the bitter roots would with it debilitate the
stomach.

This well known plant is the only native production of the United States
which is known to exist in order to procure the luxuries of China. It is not much
used in China, unless cleared, except in times of great scarcity. The plant
very little cultivated, it has brought the extraordinary price of one hundred dollars
pound, & great wealth has been acquired by some early adventurers from Phi-
ladelphia. The process of clearing, though hitherto kept a profound secret
consists in the careful application of heat & moisture to the fresh roots, & after
wards dipping them in hot rice water, or a solution of isinglass in water
It is observed that not more than one root in twelve will clear. This plant
grows abundantly near Philadelphia. The Chinese attribute almost mi-
raculous powers to ginseng. In particular they infer it possesses the power
of preventing the effects of old age, & in reviving their virility to a state
of youth. Medical men in Europe & the United States do not ascribe any vir-
tues to the plant. But Mr. Pennant shrewdly remarks that it is very ex-
traordinary that a nation so acute as the Chinese should continue to use for
long a period, & still believe in its good effects, & therefore he cannot be pre-
vailed but that the plant must possess some of the properties attributed to it
by the Chinese. Ibid.

Class 5. Order 1.

Genus R. Grossularia. Eng. English gooseberry. R. Uva crispa Smooth gooseberry.
Grows in Pennsylvania shrub flowers in April & bears fruit in June or July. When
cultivated does not acquire its natural sweet flavour in this climate till about the
September.

The gooseberries are generally eaten as an antiseptic for calming fever, bin

 they arrive at perfect maturity, and being one of the most productive, we hope they may with more advantage be converted into wine. From each pound of the juice expressed from ripe berries requires only one ounce of soft sugar, whereas the other varieties require double that quantity to induce the vinous fermentation, a very wholesome & very excellent domestic wine may be made at a trifling expense. After standing several years in bottles well corked it becomes equal in quality to muscadel or other sweet Italian wines. If the flower buds of this bush be added to a cask of any other flavourless wine, they impart after that they impart to it the taste of genuine muscadine.

The husks of this fruit, when the juice is expressed for making wine, are usually thrown away, it appears however that they may with advantage be employed in distillation, & afford an agreeable spirituous brandy. It has indeed been ascertained by experience, that such liquor, after having been kept a few months, was little inferior in point of strength & flavour, to the best French Cognac.

Gooseberries are a delicious & wholesome fruit, & could be found very profitable if attended to in the United States. They not only afford a very pleasant article of diet, but also form the chief article in an excellent domestic wine. Such a wine, made near Downingtown, the Editor had the satisfaction lately to taste, & hopes to be able to describe the particular process pursued in making it. — The fruit may be preserved by being put up dry in a large mouthed strong black bottle, covering the cork well with rosin.

The smooth gooseberry when ripe can with difficulty be distinguished from the preceding species either by the flower scale, or even by the mouth of its berries. Mr. Robson assured Mr. Withering that the seed from the same plant will produce both rough & smooth gooseberries.

All the different gooseberries are wholesome fruit, but they should not be eaten before they are perfectly ripe, nor is it proper to swallow their stones along with the juice; but the skin may with probable advan

be used by those who are accustomed to take large quantities of it in order to prevent flatulency. It is however founded on erroneous notions of its chemical properties, either to boil the unripe berries for sauces, or to convert them into domestic wines, which, tho' more costly & perishing, do not possess the delicate flavour, & rich saccharine quality inherent to the ripe fruit. Ibid.

Class 5. Order 2.

Chenopodium. C. Album. Eng. Pigweed. White goosefoot, or common wild Orache.

It grows frequently in corn fields, on old dung hills, rubbish &c. & flowers in the months of July & August. It is eaten by cows, goats, sheep, swine & hogs which thrive on it with avidity. But Linnaeus says that it is by all refused by horses. According to Prof. Pallas, the White goosefoot is a very wholesome food among corn on the banks of the Volga, where the Russian colonists make use of its very abundant seeds by mixing it with bread meal, & also boiling it separately in the form of groats. Forsend relates that a species of potash, or Barilla is prepared from this plant. Ibid.

Class 21. Order 2

Cucurbita. C. Lagenaria. Eng. Bottle gourd.

The native of both the Indies where it grows on the banks of rivers: it has a thick trailing woody stalk extending from 10 to 20 feet, & producing large white flowers which are succeeded by long incurvated fruits, of a whitish yellow colour, from 2 to 5 or 6 feet in length & from 9 to 24 inches in circumference, is used for dishes & tables.

Pepo. Pumkin or Pompion.

It is cultivated in various parts of Germany & the U. States, but the native soil which is unknown. It produces fruit of various shapes & sizes, frequently 10 feet in diameter, & its culture in a tolerable land exposed to the rays of the sun requires but little trouble. The pulp of the fruit is eaten as an ingredient in puddings & pancakes. But the most economical use of this bulky vegetable fruit

that of pattering pigs, as well as cast for them thrown into pits for them.
For these purposes extensive fields are devoted to the growth of the common gourd
in Germany, in Bohemia, Saxony, Thuringia &c. climates which coincide with many
parts of Britain. So that this plant certainly deserves to be more generally cultivated
in this country. - Besides, its numerous seeds afford an annual production of empyreumatic
oil amounting to one half their own weight: when triturated with water, they
yield a cooling & nutritious milk; & boiled into a jelly they are said by Rechlin
to be a very efficacious remedy for curing retention of urine.

C. Verrucosa Arg. Club squash.

It is cultivated in America as a culinary vegetable: its young fruit is eaten boiled
& frequently mixed with wheaten flour in the baking of bread, to which it imparts
a yellow colour, but an agreeable taste.

C. Melopepo. Arg. Flat Squash.

It has a long erect stalk, scarcely fit in height, which becomes bushy towards the top. It produces a knotty fruit of a moderate size, & is used like the preceding species. -

All the species of the gourd have several varieties, & the fruit of each frequently changes its form. They are raised from seed annually in the month of April, or in the beginning of May. But if the plant be forwarded in a hot bed, till they are a month old they will produce fruit much earlier, & more copiously soon. It is remarkable that the stalks of the different species of the gourd contain a considerable proportion of nitrous particles & might therefore become useful in the manufacture of saltpetre. The experiment will not succeed in G. Britain. But in the East & West Indies both the gourds are sold in the markets, & are used for food for the inhabitants, dressing them with vinegar, which renders them very wholsome. Lord

Class 1 Order 8

Gen. P. Lanatus Eng. Meadow soft grass

root is perennial, from five to three feet high. The culm, like a stalk of the
wheat, & the redness of the opening panicle make a very conspicuous in the field
first noticed by Mr. Marshall, a excellent for fattening the growth of young
sheep & cattle of every kind. But not good for horses. Indeed it has been accused of
causing the disease of a morbid quality of urine in horses, from its general use.

Class 2 Order 2

Gen. Anthoxanthum. A. Odoratum Eng. Sweet scented vernal grass.
It is common in our meadows & pastures, the height of the timothy, etc. an early grass
delights in moist soils

Class 3. Order 2

Gen. P. Compressa. Eng. Blue grass.
It is a native grass of the United States, having a compressed or oblique culm or
stem, panicle spread, spikelets round & eight flowered. This is eaten by cattle tol
ably well when young, & remains green until late fall. It bids the soil in the
beginning of the or four years, is a very requisite to keep the grass. This is often mistaken
for the green grass & both are called occasionally spear grass & wire grass (Dr.

Agrostis. A. Alba. White top. A. Vulgaris. ~~White~~ Red top. A. Stricta
Red grass. White top. Foul meadow grass & cat grass. Dr. Muhlenberg informs the
that he thinks this grass is the agrostis stricta of Muhlenberg. It is peculiar to adapted
to wet ground. It wets & consolidates the surface, continues many years excluding
other grass & choaks. Many worthless swamps got in the low flats of the
state of New York have been rendered valuable growing grounds by the grass. Roads
can have gravel over places, which two or three years before covering it, would scarce
admit a wagon thro without sinking. It makes excellent hay, & cattle are said
fond of it to that made of either clover or timothy. It is more hardy than timothy
not so coarse. The same bulk of red top hay will weigh one third more than the
same bulk of timothy hay. Four tons is a common crop for one acre. It yields no seed
but affords excellent bent & cat fodder. It was first brought into New York
by the late Mr. Porter, who resided near Mount Holly, & introduced
from Pennsylvania about ten or twelve years since. The Red top & White top

 are only varieties of the above species of grass. The latter is the larger of the two. The seed of this is particularly valuable, as it will grow & bear the first year sown, as well as the grass in question. (See Linn.)

Class 19. Order 10.

Arachis. A. hypogaea. Eng. ground Pea.

A plant cultivated in the West Indies & the region. When in flower it inclines towards the earth into which the pistil enters & extends to a certain depth where the seeds also pass some, that the latter attains its maturity under ground. It depends upon the season, the vegetable is produced on light sandy lands of little value, & the crop, if cultivated in the northern counties of Britain, it may, perhaps be a valuable product.

The seed or fruit, when bruised & expressed thro' canvas bags, afford a pure & wholesome oil, which in the opinion of Dr. Hatton may be used for the same purposes both culinary & medicinal, as those obtained from olives or almonds. The oil of ground pears however, possesses a great advantage, as it will admit of being kept a considerable time without becoming rancid or requiring any particular care to prevent its turning rancid during the heat of summer. A bushel of the seed when compressed yields a gallon of pure oil for food. As much larger quantity of superior oil is obtained with the aid of heat. They have been more generally known in Britain under the name of the nuts in Carolina did not exceed eight pence in the year 1768. Specimens of the seed were produced before the Royal Society & an account given in the 57th vol. of their Philosophical transactions for 1769. (Ibid.)

Class 5. Order 3.

Viburnum. V. Opulus. Eng. Guelder rose. Water elder, Snow ball.

Flowers white & fragrant in May & June & ripe in September. When in bloom the flowers exhibit a singularly fine appearance. The flowers, tho' small are formed into large globular umbels, whence it is sometimes called the snow ball tree. Birds are attracted by the red berries, but will not eat them. According to Rechstein, these berries may be preserved in vinegar & the tough hard wood is employed by the turners for small pieces of work. Ibid.

Class. C. Americana. Linnæus. Class 20. Monœcia. Order. C. Polyandria. Berkh. Linnæus.

The different species of the hazel are large, nearly, & handsome shrubs, they have several varieties valuable for their fruit, which in a cultivated state are known under the name of Filberts. The uses of this wood are various; it is used for poles, rods for hedges, hoops, handles for implements of husbandry, walking sticks, fishing rods &c. Its beautiful grains are required for veneering or staining. The roots of the hazel are so flexible & tough as to be preferable to the branches. In Italy the chips are used for fining the bitterness of wines. When great is drawn, the tops of this shrub, dried, & afterwards rectified, yield a fermenting liquor serve as a substitute for the hop in brewing. Painters formerly used charcoal for drawing outlines from the wood of this shrub by the following process. Pieces of dried hazel, about the thickness of a finger, four or five inches in length are put into a large pot filled with sand, & the top of which is closed, or covered with clay. In this manner they are put into a potters oven, or furnace, & on cooling, the sticks are found to be converted into a sufficient degree of heat, & on cooling, the sticks are found to be converted into a coal, which draws freely & is easily effaced with India rubber.

The kernel of the fruit of the hazel nut, the difficult of digestion, have a pleasant aromatic taste, which is agreeable to most palates. Filberts are stated to be more nourishing than nuts. Both, however, operate as a cathartic, when used small & taken in considerable quantities; but produce constipation, if used if swallowed in large pieces, & digested with much. A kind of chocolate has been produced from the fruit, which has also occasionally been converted into bread. An expressed oil has been obtained from the nuts, which is inferior to that of almonds; it is often purposely used by painters as a vehicle; & chemists employ it as the basis of fragrant oils artificially prepared, because it easily combines with & retains odours. An emulsion made of the kernel, taken with good old mead, is recommended for moist & dry coughs. Squirrels are extremely fond of the nuts; goats & horses eat the leaves, but they are avoided by sheep & hogs. (Hill)

Class 5, Order 2.

Lata. C. Dioica. Ang. Vetch number. C. Bulbosa. Bulbous rooted hemlock. This is a dangerous plant, growing on the edge of rivers & pools, flowering in the month of August. It is known as one of the most virulent vegetable poisons. Its roots are bulbous & contain a very acrid milky juice, that soon changes to a saffron color

of the Ranunculus kind, somewhat similar to that of Ranunculus. The stem attains a height of four feet. Cattle in the prime when it grows in the water, etc. are frequently eaten by cows, which are inevitably killed by it; but as the summer advances, its acrid properties become stronger & they carefully avoid it. Yet thus tho' it is fatal to cows it is eaten with safety by horses, sheep & goats which last devour it with avidity.

Two species of Cicuta are natives of the United States viz. C. bulbifera with white flowers & C. Maculata with a purple spotted stem & black flowers. They are both highly poisonous. Ibid.

Class 5. Order 1. Polyhoek. Chap. 5

Alcea rosea. L. Hollyhock.

A beautiful exotic plant usually cultivated in our gardens. It is a native of China, grows to the height of 8 or 9 feet; & nearly the whole of its stalk is covered with white, pink, yellow or variegated flowers that continue to blow till September. The hollyhock is propagated either by seed (sown) in drills about the middle of April on the left side of the earth, & afterwards covered with soil about half an inch deep; or by suckers or offsets from the roots. As soon as the plants shoot out a few leaves they are removed into nursery beds where they require to be well watered. If they have taken root after July as far as they are will be necessary till the month of October, when they should be transplanted to their place where they are intended to remain.

Besides the ornamental appearance of this exotic plant Dr. Thomas informs us that the soft fibrous wood part of its stalk, when taken out in addition of rags, makes a white & fine paper. Ibid.

Class 20. Order 13.

Cornus. L. Americana. Lin. American Dog-wood.

It grows in woods & ridges, flowers in the month of May. The Dog-wood will thrive on poor dry soil, in sun & in shade. If intended for fruit it is proper to sow the seeds as soon as ripe. The vegetable 18 months before the plants appear above ground & the young trees are transplanted at the age of two years to the spots where they are intended to remain. When designed for hedges, it is proper to plant them closer. The dog-wood is a very beautiful tree, & grows to a large size; it has large

It is principal food of cattle, and on poor soils yields a good crop. [illegible]
It is very white, long & even like a bundle. It is very much used by farmers, & is
used for various implements of husbandry & is very fit for the wheels of mills
fire &c. which is far superior to those made of oak. The inner bark is a pure
& yellow colour & yields. Ibid.

Class 20 Polygamia Order 1.

Genus. E. Hermaphrodite. Fam. Serratifolia Nat.

It is found in marshy waters, sides & flowers in the months of July & August. This species
is known by the name it is called, but it is hitherto conv. & disagreeable to the taste
& is only employed by farmers & cabinet makers for polishing their work as well as by dying
for coloring paper & the upper stuff. — Ibid.

Class 6 Order 1.

Genus. Sing. Bine-bell. Hyacinth.

Genus of perennial plants to great Britain one of which is indigenous. It contains a specimen
[illegible] is known to exist, flowers in the month of May. The four sorts of this plant are poisonous.
It appears from experiment that they may be advantageously used in starch.

The most valuable of the exotic species, the Orientalis, or Garden Hyacinth, which is cultivated
great extent, & with success by the florists of Holland where it sells in bulk. The roots
are most uniform, flower, & are found handsome varieties, the price of which from the
10 £ or 30 £ per root.

The hyacinth is a hardy plant & will prosper in any soil, the more dry
& sandy it appears to be, the better the scents of smell. Propagated either
by the seed or by plants offsets from the roots in autumn, in which latter case the bulb
ought to be previously cleaned & dried. Ibid. See Flora Dig. 105

Class 2 Order.

Genus. S. Vulgaris. Sweet Lilac

Genus of exotic plants natives of Persia, most of them from the principal of which is the
common lilac. It has long been cultivated in our gardens on account of its ornamental
flowers & perfume, managed with ease, & the height 8 10 or 20 feet.

[illegible] shrubs or shrubbery, yet it produces the short length of flowers in
the [illegible] of Florida, but yet [illegible] Propagated by suckers which shoot
up from the parent stock in the month of [illegible] & after a many in one [illegible]

feet in length, each twelve being one foot distant from the other. In the second or third year they may be removed to the spot where they are intended to remain. After the first season the collection will be required only to keep about the roots in the course of the year, & cutting off the shoots, which will greatly destroy the beauty of the plant. It will flower the first summer —

The leaves of the common Aloe are kept till they fall off: the juice is then collected & boiled down in vessels to a consistence. The best sort is manufactured at Barbados & other islands, & what is called Socotrine is made by immersing the leaves in cold water, straining off the liquor, & boiling it down to the consistence of a fine or soft extract. From the flower of the plant, may be distilled a spiritual oil, similar to that of rose. — Ib.

Class 17 Order 10

Clerodendrum. P. Olfoni. Common Pole Oak. P. Siam. Bastard Teak. Lizard bean

There are a number of different kinds of beans, both in America & in other parts of the world. — Common Bean, are called on Tilia. The bean cooling & softened with oil of the red sitting l. — Bean has been more employed in food than in physic. It is an overcooking, but strong & flatulent, & is ill not easily digested. The distilled water of the flower has been used as a cosmetic. The fresh leaves bruised into a poultice with cream are cooling, & good to orphel tumours. — Half a pint of the leaves when the plant is in the blossom, boiled gently with a pint of new cream, & reduced from the best honey, in an unglazed earthen pipkin, till half is consumed, is recommended for the cure of a cancer, or any other tumour, & applied thrice in a day. Ib. Ib. The Arabian Shrubs, Phil. 1795. There is an Egyptian bean, which may be eaten raw or boiled. It is astringent, & good to strengthen the stomach. (Stewart Pickles)

Class 9. Order 1.

Laurus. L. Benzoin. Amp. Fever Bush. Spice Bush.

This beautiful fragrant shrub, growing wild in many parts of America, is high in repute among the inhabitants as a febrifuge, from whence its name. The whole plant is light & smooth. The bark should be chosen for its smell & taste of lemon peel. The fragrant, & tender leaves, & the bark, are both aromatic & mucilaginous, & give a very fragrant odour when rubbed. Whole properties are due to the attention of the Dr. & others in this country, & are likely to be more so. (Natural History)

Class 14. Order 1.

Chelo. N. Catania. Eng. Cat's foot. Cat mint.

[illegible] well known herb for infants. The distilled water & spirituous water are powerful in stomach complaints. The whole herb is fragrant when rubbed. It grows in great abundance in fields & hedges. [illegible] a particular description. [illegible] distills it in the flower, & yields a small quantity of very fragrant essential oil which looks in white flakes but readily dissolves in rectified spirit. Also distills when the seeds are just formed. & yields a very clear essential oil of a dark yellow, resembling the other in smell & flavour. (Ibid)

Class 13. Order 3.

Fragaria. Eng. Strawberry.

[illegible] well known & delicious fruit. The properties of the whole plant. It may remove the [illegible] known as not so much in any particular description. But there is a secret that is known. Some [illegible] virtues are not so well understood. Many people are to be told that the plant & the decoction as a tea is excellent for the jaundice. That the leaves bruised & applied to the [illegible] prick stop bleeding & exhaust will be more interesting to the ladies. The fruit is with the [illegible] information of the truth. Such an excellent & delicious fruit cannot be other than [illegible] by art. The fruit is also said to be peculiarly efficacious in curing long & obstinate [illegible] & an excellent remedy for the scurvy. (Ibid)

Class 11. Order 1.

Ch. Lucca. P. Oleracea. Eng. Purslane.

[illegible] seed are reckoned among the four leaf cold seeds. Both the leaves & seeds are cooling [illegible] & moderately astringent. The seeds have been employed in cooling emulsions & the leaves [illegible] & a pot herb for the scurvy & [illegible] eruptions. (Ibid)

Class 12. Order 13.

Chelidonia. H. Tribbe. Eng. Nettle leaved [illegible]

[illegible] a low plant, which has no claim but [illegible] of leaves & flowers. It prevails [illegible] in gardens. The leaves are cooling & moderately astringent & [illegible]. It has been employed in diabetes, spitting of blood, bloody urine & dysentery, to strengthen the stomach & the parts, for which purpose an infusion of the herb may be drunk as a tea, or a powder of the leaves may be taken. The dose of the powder is two drachms. (Ibid)

Class 17

Ophioglossum. O. Vulgatum. Eng. Adder tongue fern.

[illegible] = adder [illegible] the [illegible] of the plant from the tongue. It
with the Ophioglossum [illegible] Linnæus. [illegible] with a [illegible] stalk
[illegible] from the bottom of the [illegible] the eyes. It appears to [illegible] the tongue of a [illegible]
It grows in meadows [illegible] pastures [illegible] spring. The [illegible] of a [illegible]
[illegible] Mitchell Dictionary.

[illegible] the [illegible] common [illegible] the [illegible] of the [illegible]
[illegible] or [illegible] for the [illegible] purpose. But [illegible] not [illegible] in [illegible]
practice. Stearns.

Class 10. Order 1

Byssus. B. Retundifolia. Eng. Skin-leaf. Pearl-cured [illegible] common [illegible] [illegible] sort
[illegible] a low kind of [illegible] which [illegible] not [illegible]. Some of the [illegible] [illegible]
[illegible] the sort [illegible] the [illegible] [illegible]

Class 13. Order 1.

Potentilla. P. Canadensis. Eng. Common five finger

[illegible] the [illegible] five [illegible] the [illegible] potentilla [illegible] [illegible] a
trailing plant which grows wild in pastures in many parts of America. The roots are
[illegible] astringent. They are good in [illegible], [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] and in [illegible] for strengthening the gums and other parts. But as there are more [illegible]
useful astringents, it is but little used by gentlemen of the faculty. — Some of the [illegible]
[illegible] of the roots are [illegible] — Of the [illegible] [illegible]

Class 13. Order 5.

Tanacetum. T. Vulgare. Eng. Common tansy.

Bracteated. Leaves [illegible] flower [illegible] corymbose. It is cultivated in gardens. This plant is so
very poisonous, that [illegible] mind it [illegible] [illegible] [illegible] [illegible] with it. It [illegible]
[illegible] and [illegible] [illegible]. It stops the vomiting [illegible] [illegible] the stomach. [illegible]
[illegible] have [illegible] to be an [illegible] made of the [illegible] [illegible] of the [illegible]
[illegible] in the [illegible] [illegible], [illegible] pain which follows [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] in [illegible] of the [illegible] gland, [illegible] in the [illegible] [illegible] —
It does not [illegible] pain [illegible] with the [illegible] of [illegible] [illegible] [illegible] in a day. It
does not [illegible] to the [illegible] of [illegible] [illegible] [illegible] [illegible] in 24 hours. It [illegible]
[illegible] [illegible] discharge of urine — This poison [illegible] the plant should take a [illegible]

tal of bitartrate, sulphate & carbonate & in the form of a powder, mixed with the radical, the dose ought to be repeated till the patient has taken 3 oz. Ibid.

Cap. 13. Vol. 2.

Genus. P. Officinalis. Eng. Plants

In the milk & flowers of female have nearly the same virtues, but in the latter is the largest intelligent it is common by and in the shops. It grows & has been cultivated & naturalized. They have been employed in obstruction, & convulsive heat of venom, pain in the kidneys, pleurisy & the jaundice. It appears by the medical experiments that they have a corroborating power. In the course of my practice in Devon discovered that they were beneficial; & Dr Cullen could not find a practitioner who could give testimony of their virtues from experience, & he was suspicious that the plant certain foreign qualities, & that they ~~[illegible]~~ belong to a second class; & I believe they are usually imported from the London Pharmacopoeia. The dose of the root in powder was from 30 to 60 grains. In decoction from two drachms to half an ounce. Of the wine in infusion from half an ounce to an ounce. Ibid.

Cap. 15. Vol. 2.

Indian. L. Petiolum. Eng. Pepper. Lap. L. Virginian. Wild Pepper.

Stalks & leaves of stem & the flowers manifestly. The whole plant is not bitter. Another species called indian cress, & Lipidium grandiflorum is the species. The seeds of the plant grown in the kitchen garden are called mustard. Both of these plants are recommended as aperient, stomachic, antiscorbutic & antiseptic. They are used for the same purposes as the mustard, & the garden cress has been used the same general virtues, from the very great & the garden cress has been used the same general virtues, from the good in scorbutic complaints, when the vital juices are in fault, & the chylopoietic organs are weak; in rheumatic & wandering pains of long continuance & in sciatica, rheumatism, & for promoting the flow of menses, particularly that of menses. Of sciatica & after effects they help the sciatica by emptying & drawing the blood to the surface of the skin. The dose of the leaves in powder is from two drachms to half an ounce in the morning fasting. Ibid.

Cap. 16. Vol. 2.

Genus. C. Sanctum. Eng. Vitex. Lap. Agnus castus. Lekand. Calaf. &c.

Is a diaphoretic, aperient & diuretic. The leaves promote perspiration, open obstructions of the urine, & are esteemed good in menses, cachexia, hysteria, hypochondriasis, worms, gout, & epilepsy from fumes of wine. The fresh leaves of this in stomachic cate flavour, are good in fool ulcers, & for distorting fungus flesh. Ibid.

Class 16 Order 18

Malva. M. Crispa. Ang. Curled Mallow.

This is the common or Russian mallow of the Americans or Mexican mallow, which received its name from its resemblance to the leaves of the mallow, to which obtained from the letter vegetable, & the cloth made of the stem of this species before mentioned is said to be more beautiful than that manufactured of flax. From the same mallow which produces the strongest & longest fibres, excellent cordage & fishing lines are produced. & M. Delile fabricated a new kind of shalloon from different species of the mallow, which not only served for the purpose of lining & finishing & also offered to be equally useful, useful for trousers, & for the hanging of gentlemen's garments. (Bonn. Enc.)

Class 12 Order 5.

Genus. S. Mimosa. Ang. Queen of the Meadows.

An indigenous perennial plant growing in moist meadows & on the banks of rivers, flowers in the month of June & July. It sends up the height of four feet, & the flowers are disposed in broad corymbs, and have a very agreeable odour which on distillation has been often employed by wine merchants for imparting the flavour of meadow wine. The roots are so powerfully astringent that calf leather has been tanned by them in a fortnight. According to Bergius the Russian peasants use the roots as a palatable granulated flour or groats. & Olaffen informs us that the Icelanders dye a durable black colour, by a decoction of the whole plant. They dress the roots with a dilute potash & dissolve in lime water & boil them with bark & horse urine & the.

Class 20 Order 10.

Genus. Dry. Oak.

The author's history of the American oaks was first published in 1801 by John Pursh, who had been sent to America by the Elector of Hanover in 1799. He was accompanied by Andrew Michaux the elder, the botanist, who had spent the preceding years in the interior of North America. The work was published in two volumes folio, with 108 plates. The work ought to be in the hands of every person who wishes to study the Flora of the United States. Some copies were sold in Philadelphia at the low price of $10.

[illegible] Allium sativum. The cultivation of garlic is very common in the southern states, where it is used for many purposes, where strength of herbs is required.

Allium cepa. Common or Spanish Onion. The Spanish and common onions are varieties of this species, which are cultivated in gardens.

Order 2. Hexandria. Monogynia. The leaves of the flowers are white, the stem is green, and the flowers are pale green. This species is found in Georgia, Carolina & Florida.

Class 6 Order 1.

Allium sativum. Garlic.

Garlic is raised from cloves, which are the largest & most nutritious bulbs, & are sown with the stem, & every one will send up several stems. When the heads of seed appear, each bulb must have a stake, lest from fall down, & the stems bent to the stake, & tied with string. Garlic is used by the slaves as a medicine, & is used for many purposes.

The cultivation of onions in no respect differs from those of garlic, excepting that the former are less pungent & are therefore more generally used for culinary purposes. Any person, however, dislike them on account of the strong disagreeable smell which they communicate to the breath: but this inconvenience may be obviated by eating a few leaves of parsley immediately after partaking of onions, the scent of which it completely removes, & at the same time promotes digestion.

Onions are formerly exhibited to be an efficacious remedy for suffering from pleuritical complaints, but they are at present chiefly used in external application as poultices, or cataplasms for suppurating tumours. A decided wash for the most frequently recommended on the continent also consists of the juice of garlic.

Class 17. Order 10

Pisum. Pea. Garden Pea.

The common pea has long been cultivated in this country. There are two sorts of the species known by the name of Grey or Hog pea, & of the common or garden pea. The latter is again divided into many varieties, of which garden cultivators count not less than thirty. Let us the only common varieties of those which are in the habit of cultivation, now in the Long Island

 The common white boiling pea: the Marrow for Sowing Hay: the Marrowfat: Sugar, Large Grey, & Spotted Peas.

Of the various delight in dry warm soils, tho' the Pea will also succeed on poor land. They are raised from seed which is sown from the middle of February to the middle of April, in the proportion of from three to five bushels per acre broadcast, but if drilled, two bushels will be fully sufficient. — Beside their utility for soiling, the Pea, when harvested dry & ground into meal, are uncommonly serviceable for fattening hogs; as are other grains agreeable with those animals. If the Pea be sown in autumn, & has been housed in August, it is little inferior to common hay, & affords a very useful stick of fodder, on which every kind of cattle will thrive, & tho' it be apt to occasion grripes in horses, if given to them before the month of January, yet such effects may be counteracted, by allowing a few turnips, cabbages or potatoes, either with or after the horse eats the pea straw. — A crop of peas is far from exhausting the land that it may be considered an excellent & ameliorating one. The early peas, if sown early towards the end of March, & ploughed in shortly before sown, will prove a valuable dressing for wheat. — In common with all legumes they flower, will prove a valuable dressing for wheat. — In common with all legumes they flower, will from a valuable dressing for wheat. — In common with all legumes they flower, will from a valuable dressing for wheat. — In common with all legumes they flower, will from

[illegible] in a vessel with the juice of a whitish liquor, about one fifth part of the juice of the fruit, which communicates to a large quantity of other liquor a flavour similar to that of the fruit. The number of the different flavours, and the [illegible] of them that are in high perfection, [illegible] with a little care and [illegible] for children. [illegible]

Class 12. Order 5.

Genus. P. Communis. Arg. Common Pear.

A valuable indigenous tree growing in woods & hedges & woods in various parts of Britain, flowering in the months of April & May.

The fruit is delightful in high soils & gentle declivities but rude, thin in moist situations. It matures with most sorts; its wood is smooth, light, & compact. It is used in considerable quantities by turners for machine carpenters or joiners tools, & for flutes, frames, which are stained black in imitation of ebony. The leaves in autumn become a yellow dye, & are employed to communicate a green colour to the cloth. The pear cake by horse cows, deep [illegible]. It is the opinion that the fruit of the pear has a more astringent taste, but is attended with highly grateful & skillful gardeners have obtained such high [illegible] by inoculating, marching, engrafting, & the common wild stock with various sorts being [illegible]. The most valuable of them, whether for the dessert or for culinary purposes are enumerated under the article Orchard. All the varieties of this tree are hardy, & succeed in any common garden soil, provided it be dry. They are propagated by engrafting & by budding or inoculating, as this species seldom thrives well when raised from seed or from pips or stones. The cultivated varieties originally with out soil. Sometimes the scions are engrafted on medlar in order to render them [illegible], & many persons have contended to bud them on white or hawthorn. When there has been a scarcity of original or free stocks. But such practice ought to be adopted only in cases of real necessity, as it renders the fruit worse, & therefore diminishes their value. Selection relative of pears depends not less on the state of ripening or immaturity in which they are used than on their different flavours, some of them being hard & astringent, & difficult of digestion. The more juicy ones however possess a saccharine flavour which does not offend the stomach; nor the hard & astringent varieties are more fit for the table, when, or the generality of fruit & winter pears are particularly liable to rank in consequence as they are commonly eaten at a period of the year when the stomach is relaxing rather than on its growth.

In different kinds of pears, their utility for domestic or culinary purposes, if managed in a manner with little care or nothing under afford a great deal more than the name of Pear.

Class 12. Order 5.

Gen. Pyronia Lin. Avia. Tun

are in the ~~[illegible]~~ to be raised by layers, suckers, or cuttings. They require
no other pruning, the most important part of the management consists in clearing
the stems from suckers, & in cutting off such branches as interfere with each other. All
insignificant shoots that still appear from the middle of the tree, must be cut off
lest the wood be too much crowded with wood, which might prevent the growth of the
fruit. Since trees are also highly esteemed, as stocks, on which fruits might with great
advantage be budded. The operation greatly improves the taste & flavour of these
fruits which arrive at maturity in summer & autumn: but it is by no means proper
for those which remain hard & stony. In the Middle counties of Ireland
fruit which is thus rendered hard & stony. In the Middle counties of Ireland
are not eatable in a raw state; nevertheless they possess antiseptic
properties, when dressed, & contain a considerable portion of acid & mucilaginous
principles, when dressed. They seldom disagree
with the weakest stomach. The liquor expressed from them has frequently been given
in small quantities with great success in nausea, vomiting, & similar complaints.
This fruit is generally boiled & eaten with sugar in which form it may also be usefully
employed in cases of hysteria. One quart of the juice of quinces mixed with one pint
of sugar, & fermented, affords a delicious wine; on adding to the same quantity, one
pint of the best French brandy & four ounces of sugar a celebrated liqueur is pro-
duced on the Continent & which is greatly prized as a cordial & stomachic. Ten table
spoonfuls of the mucilaginous juice of the quince, mixed with one pint of water, form a
mucilage, which is often used in medicine as a
substitute for that of gum arabic. Ibid

Class 12. Order 1.

Genus. Arg. Plum.
A genus of plants comprehending 30 species — All the different varieties of plums
have been raised from the stone, & afterwards grafted or budded on plum stock. The best
fruit is produced on the Damson or Bullace. — Besides their utility as a culinary
fruit plums possess valuable medicinal properties. In a dried state they excell
prunes & are eminently useful in cases of costiveness accompanied by irritation, the
effects of which could be appeased by powerful laxatives; but they ought not to be eaten

[illegible] or for an infusion of mint with the addition of [illegible] of [illegible]
[illegible] of [illegible]. With this exception they are not known to produce [illegible]
[illegible] & a perfect [illegible]. but when prepared do not speak positively this power may be
[illegible] by combining them with a small portion of [illegible] or cream of tartar.

If [illegible] be eaten in a fresh state or before they are perfectly ripe, & in immoderate
[illegible] they induce colics, vomiting & violent affections in the stomach & in
[illegible]. The large kinds should never be used seldom, & with great precaution
[illegible] more dangerous than the small species; because the former are rarely [illegible]
[illegible] to attain to maturity. Ibid

Class 5. Order 4.

[illegible]gina S. Proembens. Eng. Pearwort. Trailing Pearwort. or Creeping [illegible]
[illegible]ered in Jamaica by Professor Eaton, in the water. It flowers in the month of
[illegible] to August. The elegant herb is one of the smallest productions of the vegeta-
[illegible] kingdom; it thrives like the hydrophyte, & its main branches; the leaves are
[illegible] & minute; the blossoms pearl white; & the whole plant scarcely exceeds three
[illegible]ches in height. Ibid.

Class 20 Order 16

[illegible]nus. Eng. Pine tree
[illegible] genus of trees consisting of 30 species. (Nine of which grow in Deepfield)
All the species of pines are hardy trees. From this genus of trees is extracted the common
[illegible]tine, which on distillation afford the oil known under that name. The process is prepared
in the following manner; Early in the spring the bark is stripped off the pine tree and
[illegible] the sap then flows the more freely into the cavity prepared for its reception. This is the
common turpentine which is fit for immediate use; after the sap has ceased to flow, the
[illegible] is cut into billets, which is thrown into pits where they are set on fire, during the
[illegible]tion, a black thick matter oozes to the bottom which is conducted into a receiver
[illegible] which is known by the name of Tar which is poured into casks for sale, or
[illegible] to be made into pitch. It is boiled in large cauldrons, without the addition
[illegible] of any other fluid, & on boiling cool it concrete into a hard black mass.
Rapida. Pitch-Pine. P. Taeda. Pitch pine. A common species in the United States
[illegible] to the height of sixty feet much used for sawing into boards. This the largest of the

of all the pines. It is usually used for fuel, & for making charcoal; its knots being full of the pitch afford a light in making candles. Its root is collected & used for dyeing black. It also yields tar, & is sawed into boards, & makes strong planks for vessels.

P. Strobus. New England White Pine. One of the largest American trees. Its bark is smooth & of the prime of the American forest in size, & majesty of appearance. It abounds in the New England states. Great use is made of the timber for masts, yards, & bowsprits of ships. It is also sawed into boards which are much used for inside work of houses. The grain is smooth, & when free from knots does not injure the workman's tools; but the softness of its texture subjects it to shrink upon the workman's tools: but the softness of its texture subjects it to shrink upon the weather. Shingles are also made of this tree, & are thought to be good with the weather. Shingles made of this tree, & are thought to be good with the weather. The septic pine this of the same genus is not so fine & smooth as those of cedar. The septic pine this of the same genus is not so fine & smooth as the white pine, & is more readily affected by the weather.—

P. Resinosa. Yellow Pine. is harder & heavier than the white, but never grows to the same size. Its plank & boards are in great demand for deck, ship & floor of houses. It is called Norway pine. red pine.—

P. Nigra. P. Alba. P. Fraseri. Spruce. Black Spruce. &c. There are three varieties distinguished by the color of their cones which are white, red & black. The grain of the wood is brittle, & makes bad wood on account of its continual snapping. The young twigs of the black spruce are boiled with the bark may be stripped from the wood & being mixed with molasses makes a pleasant summer drink. The wood of this spruce is made the common shingle is as well known in Europe as America.

Class 10 Order 3

Diadelphia. D. Sapotes. Sweet William. D. Plumarius.

All the species of pinks are beautiful plants & are generally cultivated in gardens on account of their fragrance. They are propagated by seeds as well as by slips & layers, the latter of which should be planted three inches apart towards the end of July in shady borders, towards the end of July in shady borders, that have previously been well dug & manured. Should the weather prove dry it will be necessary to water the slips &c. daily till they have taken root; after which our care will be required then to keep the flower weeds & to transplant them in autumn to their under flowers be required to decorate. Ibid

Class 20 Order 3

Genus P. Occidentalis. Lin. The Sycamore tree. Button wood tree.

This is indigenous in Virginia & the adj. states & is one of the most fine & common trees in the United States. It grows to a great size & when full grown, produces twenty loads of wood. Both the Occidentalis & the Orientalis are highly esteemed for their beautiful & magnificent forms. They shed early in autumn. They are industriously cultivated in Europe & in the country especially along public roads & other places of resort, on account of their cooling & agreeable shade. The plane tree is very hardy & will flourish in any common soil or exposure; it may easily be propagated by seed or cuttings which should be committed to the ground in autumn.

This description tree particularly the America species is one of the greatest ornaments of modern plantation; its wood is excellent for various articles of domestic furniture, specially for tables; because it is certain cut it bounds with veins & when rubbed with oil or wax it resembles that obtained from the finest walnut tree. The dry leaves & branches of this tree, according to Dambourney's experiments afford a decoction of a fine bright and brown tint; which on adding different ingredients either acid or various chemical or mineral mordants, so that they may extract advantageously employed in dyeing. Ibid.

Class 2 Order 1

Plantago. P. Lanceolata. Ang. Ribwort Plantain or Ribgrass.

This is a herbaceous plant very common in pastures & flowers in the month of June. It is remarkable that this plant is eaten by horses, sheep, & goats, but wholly refused by cows; though the richness of the milk in the noted Alderney dairies, is by Mr. Miller, attributed to the nutriment derived from this plant & the common Ladies Mantle. The former is cultivated for pasturage, but does not answer the purpose unless combined with clover & grasses. The total absence of rib-grass in marsh lands, is a certain criterion of the different quality & preparation as such lands are improved by draining. This plant flourishes above. Dr. Withering observes, that when it grows detached from other grass, for instance by the sides of foot paths, he has never known cattle to eat of the leaves of plantain; but that they certainly eat it when mixed with other herbage.

Class Cryptogamia Order 1

Polypodium. Pol. Vulgare. Eng. Polypody.

Polypody is a genus of plants comprising 12 species. The vulgare or common polypody is perennial, grows on old walls, hedges, places, & at the roots of trees; it flowers from June to October. The root of this plant has a sweetish taste; but by long boiling it becomes bitter. When fresh it operates as a mild laxative, so that an infusion of six drams of the root in half a pint of boiling water, may be taken in divided doses. JHB

Class 21 Order 8.

Populus. P. Dilatata. Eng. Lombardy Poplar.

This is a native of the northern part of Italy; it also flourishes in moist situations, but will not succeed if its roots are too long covered with water. On account of its rapid growth this species is greatly esteemed for ornamental plantations; its cutting, are useful for hop poles; the wood being soft, fine grained & easily worked, it is much employed by joiners, carpenters & cartwrights; it may be wrought into very fine thin sheets for carriages or for lining for chests. Gathered from excellent mat. of small vessels & particularly serviceable for packing boxes, because the plank yielding to the nail is not liable to be split; & in case the box to be accidentally dropped on the ground, the board is not easily broken or splintered as those of oak & other trees. Lastly it appears from numerous experiments made by Dambourney, that the Italian Poplar affords a dye of as delicate a kind & equally durable as the finest yellow wood; the tinging matter is more readily extracted; but instead of striking a fine green with alum it changes to an olive shade. The dry branches are perfectly tough in a green state; hence they may be cut or braided, being possessed of the property of giving the colour obtained from Brazil & logwood.

Populus Balsamifera. Balsam Poplar.

This is a native of Carolina & attains a great height. It is but a delicate tree to be grown, & as it grows with greater rapidity than any other species, it soon repays the expense of planting. The wood is very soft, spongy, light & principally employed for packing boxes, though it also furnishes good posts for fences. Dambourney obtained from the Carolina & with as the other poplars a fine green out & similar green dyes, yet took according to the quantity of wooden fuel & the length of time it was boiled, the redness quite exposed from the flame but is probably the American Tacamahaca in medicine & is recent wounds provide no more & tissues have been injured

other four species of Pepsis found in this town, the P. formicaria, the P. [illegible] [illegible] & P. dilatata).

The different species of Kerria produce on the upper part of their [illegible] a coat or [illegible] which is of considerable value for varnish, & with which Dr. [illegible] Chemist has lately made the experiment into a coat, quite firm, & from [illegible] Formerly a minister of Fox Island for many of the years before mentioned & for many of succeeding stand excellent nuts, & according to his calculation, each population yielded more than 1000 of such material. Ibid.

Class 5 Order 1

Genus. S. Tuberosa Eng. Potato.

Valuable root originally a native of America. Since it was introduced into Europe, & subsequently into Britain about the commencement of the 17th century — there are numerous varieties of the potato, which are cultivated both for culinary purposes, & for the feeding of cattle. — The potato is one of the most valuable roots for culinary use. When boiled it forms a principal article of food, & serves partly as a substitute for bread. Mixed with wheaten flour, fermented with yeast, & properly baked, it forms a palatable loaf. — Potatoes are likewise valuable in fattening pigs, but if they be designed for bacon or ham, it will be advisable to mix gradually from half a pound per day with an equal quantity of the boiled root, which portion will, it is said, fatten an animal of twelve stone. In a boiled state they may be given to poultry with the same effect & they will fatten in nearly one half the time that they will with a food of corn or even meal by itself — Mr. Bordley has in a little pamphlet, in his excellent notes on husbandry, the superiority of potatoes as food for beasts, over Indian corn, is in respect to cheapness, & the quality of nourishment afforded by both articles. In the feeding of hogs, if the potatoes show the least tendency to purge, a little alum or the inner bole may be given with them. — Sheep are very fond of potatoes, but yet it increases their inclination to rot.

Formerly, a kind of brandy was distilled from the roots, but the legislature have prohibited such practice. Yeast or a fermented mash may be prepared from potatoes, which answers all the purposes of yeast in cookery, particularly for raising cakes, & well worth attention. Any quantity of new made potato starch should be boiled into a paste; a sufficient portion of which ought to be mixed with the solution after the bottles have been filled with wine. The mixture is made clear, & the bottles are supposed to be filled to the neck, as is mixed with the wine of glue. Here another economical way of employing the starch prepared from potatoes in the preparation of one kind of starch or other. The liquor of a [illegible]

for washing linen, both the plain or coloured. Silk handkerchiefs, stockings &c. without the aid of lye or soap: it is said to improve rather than diminish the texture, while it restores their original brightness & imparts a degree of stiffness to silk stuffs, which cannot be obtained in the common way of cleaning them. It deserves, however, to be remarked that no discoloured or otherwise damaged roots must be used for this purpose. — Dr. Kennedy, farther, converts the pulp of potatoes into yeast, by adding a small proportion (about the 8th or 10th part) of the latter to the with two drams of calcined pulverized crab claws or oyster shells & a similar quantity of burnt barley — the leaven is fit for the fermentation. This compound is said to increase the bulk of the paste & consequently of the bread; but doubts the measure of its original to serve as a substitute for barm.

In the stalks of these roots, when cut in small pieces, find a grateful food for cattle: the bark has also been converted into paper. But it is more generally & we venture more hopefully employed for thatch, litter, or when straw is scarce instead of thatch for cottages. Lastly, even the potato apple may be usefully employed in domestic economy. In the new Sandwich Journal of Agriculture for 1796, it is directed that such apples should be collected while in a green & hard state, then well rinsed in cold water, & put for 48 hours into a strong pickling brine. Next they are to be placed for six or eight hours in a colander or drain, when they ought to be boiled in good vinegar, with the addition of some spice, till they acquire a certain degree of thickness, without becoming too soft. Thus prepared, they only differ from pickled walnuts & keep the best pickle than either olives or cucumbers.

Class 16. Order 3.

Stephanotis. L. Selinum. Nep. Garden Parsley (which is cultivated for the table. There are two this an exotic from originally from China & which is cultivated for the table. There are two varieties of it known under the names of the small tufted, dwarf-pale and a red variety of it known under the names of the small tufted, dwarf-pale and a red variety of it known under the names of the small tufted, dwarf-pale and a red variety

Gen. R. Occidentalis. Ang. Western Virginian Raspberry. Bark
fruit is white, black, purple, & sometimes delicious, but smaller than
species. It is indigenous to Great Britain. It thrives in the open air on a light
dry. Odoratus. Flowering raspberry. Flowering raspberry. With a plain stem, h
p many, one colored flowers, & purple fruit. Shrubs. It attains the height of fi
et & forms a spreading shrub with close foliage. The bright red berries are of the
lar flat shape, & have an agreeable subacid vinous taste. (Ibid)

Class 10 Order 2.

Saxifraga. S. Virginiensis. Ang. White Saxifrage. Rock Saxifrage
common white Saxifrage was formerly in great request for its supposed efficacy
curing nephritic & gravelly complaints; at present it is little thought of.
Mr. Thornton has given a colored engraving, nor described the specific ch
ters of this plant if it were not uniformly discovered in soil beneath which a bed
gravel is to be found at no considerable depth. Hence it affords a certain guid
which Miners & Landed proprietors may be directed in digging for the latter
metal, especially in places where other stones cannot be easily procured for repairing
the roads. Ibid.

Saxifraga. Pennsylvanica. Ang. Water Saxifrage. Meadow Saxifrage.
It has a perennial, long thick creeping root, white within, & hairy at the top, with stem
ets rise from one to two feet in height, which are thick round furrowed, smooth, pith
dishes towards the bottom & branched. The leaves are smooth, of a deep green & divided
longish narrow pointed, stiff segments with an acrid taste. The flowers grow on the
ds of the branches in umbels, which have five leaves or petals in the form of a cross
a whitish color. These are ~~common~~ included by fours on top of the short peduncles
ed, convex on one side & flat on the other. They have a very pleasant & aromatic
atic taste. It grows almost every where in moist places & has been looked upon as an
ing good for the gravel, the root being a powerful diuretic, but it is not now used
d for that purpose. Brooks. (It is found a a flower bed in the spring of the year.)

Class 12. Order 5

Gen. S. Americana. Ang. Scarlet Mountain ash.
Service tree is cultivated in Britain principally as an ornament for diversifying ex
tations; as it grows to the height of 40 feet. It is propagated by sowing the seed, a
after the fruit is ripe in pots which must be sheltered during the winter, & plac

the spring season it will be proper to plunge them in hot beds & to water them frequently, during dry weather. Towards the middle of October the young plants may be removed to a warm spot of light soil & placed on foot apart from each other in rows two feet asunder. Here they should remain for three or four years at the expiration of which they ought to be transplanted to the place appropriated to their growth. Ibid. Journal.

Class 6. Order 1.

Galanthus. G. Nivalis. Eng. Snow. Drop. or Fair Maid of February.

The snow drop presents a beautiful little flower, & is chiefly esteemed on account of its early appearance; adorning the garden when the ground is covered with snow: it is divided into three varieties, known under the names of single, semi. double. & double, which differ only in the season of their flowering. They may be easily propagated in any soil, & will multiply exceedingly by offsets from the roots.

The roots of the snow drop may be made subservient to an useful domestic purpose: Dr. Dakin thinks that if they were dug up in the winter & prepared in a similar manner they might afford a nutritious powder, resembling that of Salep. He observed that he once boiled a few; which on tasting them, possessed a pleasant flavour. He is therefore of opinion, that if prolific seed could be procured from this plant, it might be advantageously cultivated for the same purpose as the orchis; a conjecture which is corroborated by the experiments of Ghelitsch, who obtained from the roots of the snow drop an excellent starch. Ibid.

Class 18. Order 1.

Sonchus. S. Oleraceus. Eng. Sow. thistle

It grows on cultivated ground, dung hills, & in hedges; its yellow flowers appear from June till August. The leaves of this Sowthistle used are the favorite food of hares & rabbits; they are likewise dressed & eaten among other culinary herbs. The roots have occasionally been converted into bread. Sheep, goats, & swine refuse, the vegetable but it is relished by horses. Ibid.

Class 21. Order 1.

Spiraea. S. Ulmaria. Eng. Spiraea, or Meadow.

This is a plant for ornament, & for its use it is propagated by the seed, bud & layers, which last are the most easy. & should be made at the time of planting out the plants, they must be carefully weeded & thinned to the distance of six inches in October they will be fit for use. When the leaves are fully grown

those in the center being suffered to grow to a large size. so that a bed thus 2 or
exposed will supply of the best hay during the winter, till the ensuing year
is fit for the scythe, which generally happens in April.

This vegetable is good, when at the table but when dry it is not so good
as Timothy, the stems being thick & coarse, & consequently apt
to remain moist. It is probably in hope for years of weak or low habit in
children, the chamomile, and cause bowels & not unfrequently occasion the
heartburn or acidity in the stomach. (Ibid)

Class 3. Order 1

Thoranthum A. Odoratum Sweet Vernal grass Spring grass
indigenous perennial. growing in meadows & pastures. flowering in the month of May

This is one of the earliest British grasses & occasions the delicate flavor
of hay made in early spring. It is eagerly eaten by cows, horses, goats & sheep on account
of its aromatic taste & pungent smell. Mr. Sprengel has observed that it abounds
most land particularly on peat bogs & that it appears to be of little consequence
in the very good hands of the farmer, nor pellitt to cattle. Some thinks, however
that it is of a different opinion & that the bad taste & smell of the hay
is a great evil. Some think that the vernal grass and the sweet scented
vernal grass are the same plant. The sweet scented vernal grass
is very common in the pastures of Massachusetts. (Ibid)

Class 1 Order 2.

Hydrocharis C. Morsus Ranae Frog's bit Water Soldier or Water
Water chickweed. grows in ditches, ponds, & slow streams; it flowers from July
to August:

Hydrocharis C. Alsinastrum Water chickweed Stargrass [illegible]
[illegible] flowers [illegible]
[illegible] the [illegible] to [illegible] a [illegible] [illegible]
[illegible] they may be [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]

[illegible] 18 [illegible]

Culture of Sunflower, Indian Corn in the garden.

The sunflower plant which is generally used in our gardens as an ingredient in our Cordials, might be cultivated to a very great extent in fields of from one to two acres, from the beginning of April to the end of July, in order to obtain a supply for the fall. The young plants must be transplanted, or thinned out, so that the plants may be well supported by the stalks of the other, & allowed to develop themselves in the shade of the tall growing plants. It will be advisable to the stems, then cut off close to the ground, leaving the roots to be dug out & the land ploughed, when ready for the green manure, in consequence of which they will be [illegible] for the use of the crop, in consequence of which they will be [illegible] for the use of the crop, in consequence of which they will be [illegible] or [illegible] in fresh ground in a dry [illegible]

[illegible] 18 [illegible]

Cultivation of Sunflower.

It is well to begin in very [illegible] soil, either by sowing the seed or by planting the plants in the beds by March. Within a few weeks the plants will appear, & when about an inch high they should be removed into the borders of gardens or other [illegible] that the distance of 15 or 18 inches in between each. They may occasionally be [illegible] & if would be profitable, as they will require [illegible] to attain the height of sixteen eight feet, in July they may be [illegible] to blow till October. When they have ripened which is evinced from [illegible] large proportion of palatable oil the yellow [illegible] of the flower [illegible] & [illegible] the stalks of [illegible] will be often required [illegible] in dimensions; hence they may with advantage be varied in situation where [illegible] indeed [illegible] with any vegetable that is likely to affect [illegible] and greatly advantage by an infusion of this [illegible] a few acres [illegible] which is not sufficiently fertile for some kind of [illegible] seems to be [illegible] that it greatly tends to enhance the growth, and [illegible] [illegible] [illegible] without artificial irrigation.

[illegible] on the subject of sunflower culture [illegible] the 1st end of the [illegible] [illegible] it appears that [illegible] the end, yield the [illegible] & that the quantity [illegible] from one hundred plants set about the [illegible] in the [illegible] the [illegible] inflated. The oil is [illegible] of an agreeable taste. It is recommended to set the seed in a hole & when the

[illegible] Sunflower. Small Sun Flower. Large Sun Flower.

[illegible] Other Sun Flowers, have hitherto been cultivated only for ornament [illegible] but it is obvious that they may be made subservient to many economical purposes, especially as substitutes for hemp in manufacturing paper & thread from the stalks, for [illegible] & [illegible] the stalks of these plants regularly stripped & [illegible] from corresponding to the same [illegible] which they offered have a considerable [illegible]

Sleeping Order 5.

[illegible] Common Milkweed. Syria Swallow wort. Silk plant.

[illegible] of North America, & especially of Virginia. It has long stalks with the height [illegible] & the pale purple flowers in June & July, in the agreeable odour, & [illegible] by large thick & soft capsules the seeds of which are provided with a long silky [illegible] of the most valuable productions; & as the experiment has [illegible] that it may with equal advantage be raised in the [illegible] of the union. It is also a hardy perennial. It [illegible] perfect stalk of from two to three feet. It [illegible] in the most indifferent soil. It may be propagated either by the seed or roots; vegetates [illegible] & [illegible] in a loose mellow & rather damp ground. The seed should be sown in the [illegible] & the young plants be transplanted into a [illegible] & [illegible] the [illegible] followed in the succeeding summer. & Rood, after having attained the [illegible] & 10 the principal stem should be [illegible] the lateral branches [illegible] carefully removed. The practice to make it in a regular & [illegible] the [illegible] yellow & [illegible] the [illegible] & [illegible] & [illegible] & [illegible] [illegible] & [illegible] [illegible] [illegible]

[illegible] of the corolla, half [illegible] affords excellent [illegible]
[illegible] paper of a fine quality. It [illegible] extremely
tenacious [illegible] for [illegible] & [illegible] indigenous [illegible] in Europe
[illegible] the [illegible] of [illegible] in Jamaica the [illegible] of [illegible] [illegible]
[illegible] [illegible] that [illegible] of the plants [illegible]
This plant abounds in the neighbourhood of Philadelphia & [illegible] [illegible] [illegible]
for the many valuable purposes to which it may be applied. Dr. Smith [illegible]
[illegible] says that in Jamaica the plant is allowed naturally & that stuff
has been made from it which sweet in lieu the [illegible] with. The [illegible]
said to be a good one & also to answer for candle wicks. (Ibid)

Class 18. Order 1.

Cricum. C. Lanceolatum. Hemp. Thistle Thistle.

It grows on rich & moist soil, where it flowers in the month of July & August.
According to Dr. Mitchill this species vegetates on ground much [illegible] [illegible] where
and with them make the stalks it affords new plants with equally efficacious [illegible]
which become fertile. The flowers like those of the artichoke [illegible] the [illegible]
[illegible] with [illegible] [illegible] [illegible] [illegible] [illegible]

All the species of this genus [illegible] valuable may be usefully employed
[illegible] in the [illegible]. Thus the [illegible] of the thistle affords both a valuable material
for manufacturing Paper, & a kind of strong cloth; the [illegible] [illegible] by [illegible] the [illegible]
[illegible] of great service in [illegible] [illegible] & the young [illegible] [illegible] may be
[illegible] & eaten as a substitute for asparagus. Ibid.

Class 18. Order 1.

Cordyalon. C. Tes-thium. Hemp. Cotton Thistle.

A biennial growing to the height of [illegible] feet on [illegible] [illegible] [illegible] [illegible]
[illegible] & sheep & horses: — its expressed juice was [illegible]
[illegible] the quinsy, [illegible] to be a specific in cancerous cases. The receptacles, to
which the [illegible] may be boiled & eaten like artichokes. The [illegible] [illegible]
[illegible] the wool is capable of being employed in the manufacture of cloth & paper. The
seed of this [illegible] plant also [illegible] a great [illegible] [illegible] to the [illegible]
[illegible] or [illegible] from Brazil a [illegible] [illegible] that the [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible] 3 tbs. [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] to other oil. Ibid.

Class [illegible] Order [illegible]

Thymus S. Gallicus. Ang. Garden Thyme

It is indigenous to the southern parts of Europe but is now generally cultivated in our [illegible] gardens for culinary purposes. It flowers from the [illegible] of July to the end of August. It affects most the south, or by strong [illegible] in light, rich & well prepared soil. It [illegible] in both, & for the [illegible] purposes. In medicinal properties it is one of the most powerful aromatics [illegible] & [illegible] oil is often used in the shops as a substitute for that of Thyme [illegible]. (Ibid.)

Class 17. Order 10

Vicia. Ang. Vetch. Tare. A genus of plants comprehending several species [illegible] in Britain & Ireland. [illegible] (Lawson.)

Vicia. Ang. Tufted vetch.

It is frequent in shady places, meadows & fields, flowers in the [illegible] of July & the beginning of August & is stand with the [illegible] [illegible] & the [illegible] are said to [illegible] & [illegible] [illegible] the same [illegible] as any other vegetable [illegible] [illegible].

V. sativa. Common vetch or tare. This is the most [illegible] [illegible] of the genus. It is one of the most valuable of the cultivated [illegible] [illegible] & is sown in the [illegible] [illegible] [illegible] [illegible]

Class 3 Order 2.

Triticum T. Hybernum Eng. Winter Wheat. It is principally raised in Great Britain & the United States. It grows somewhat taller than the Red or Summer Wheat, & is thus varieties, viz. 1. T. hybernum, spica & grana albis, or common white bearded & grain. 2. T. hybernum rubrum, spica & grana alba, or common wheat with a white ear & red grain. 3. T. hybernum rubrum, spica & grana albis, or Spring Wheat with white ear & red grain. This variety are distinct of beards & should not be sown earlier than in September, nor later than in November. They produce the most valuable wheat which yields the largest proportion of flour.

Triticum T. Compositum. Egyptian Wheat is remarkable for its uncommon fruitfulness. Its straw is strong & tough, whence it has received the name of Reed Wheat. The grain however does not yield so large a proportion of flour or meal as any of the preceding grains or varieties; & the flour is decidedly inferior to that obtained from the finest varieties. (Ibid.)

Class 20 Order 2.

Salix Amy. Willow a genus of trees comprising 48 species.

S. Vitellina. Golden or yellow willow abounds in our Brit. & flowers in May. Its shoots are used by basket makers; its white, tough, pliant twigs are employed by basket makers & gardeners for tying up the branches of vines & espalier trees. The wood when cut with its bark affords excellent yarn for manufacturing purposes.

S. Dicksoni. Variety purpurea v. Rubra v. monandra. Rare, grows in wet willow one in hedges, valley places, & the sides of rivers. When it blossoms in the month of April & May. Its long slender & flexible shoots are manufactured into baskets, cradles, & other articles of wicker work. This species eminently deserves to be cultivated in the sandy beds of rapid streams, as it is one of the most useful trees for consolidating loose sils & even drift sands.

Salix Alba. Eng. White or common willow. It abounds in wood hedge rows, in wet meadows & further ground where it attains a considerable size; flowering in the month of April. Its blossoms are easily visited by bees; its leaves & young shoots are eaten by cows, sheep & goats; the wood is employed in making pots, hoops for casks, stakes & billets for fuel. The bark communicates a cinnamon colour to yarn, & it is not only used as a tan, but also employed in tanning leather. It has also been that of the cork & smooth willows been successfully admitted in a year. The flow. the stone dried & kept to be gathered in the spring & rich red abounds with sap, & to be taken

lows of one dec. in every four hours, between the tide, in a few days, or in some
I found it necessary to cut a little part of Perennial bark with that of some
on. As the tree frequently grows in wet marshy situations where grass or weeds
elent it has been thought to afford a valuable substitute for the foregoing opera
ly in the price of the pails of the latter has lately been so exorbitant that the
cannot easily procure it. Ebal. to quality hardness every year more impaired by
of fraudulent adulteration

Lin. Babylonica or Weeping Willow is a native of the East, where it attains
Introduced into Britain & from thence into the U. States. It flourishes by the side
ers attains to a considerable size, & its long depending branches contribute greatly to the
ty to scenery. it is rarely used for ornament

All the species above enumerated delight in moist situations. They may be easily propa
ted by planting sets, cuttings or truncheons of willows about 6 years, or three in spring
tions: as they speedily take root, & in the course of a few years, amply repay the out
will be bestowed on their culture. The yellow willow might more to be planted to mere
th or spring, because it spreads most extend their roots; on the contrary the sha
ow may with advantage be prefered in marshy situations as it rarely tends to cover
et the ground, & after a few years, the soil will generally be covered with a pleasing
ge Plan.

—

Class 12 Order 5.

ms. P. Malus. Lang. Apple. tree

e apple tree is too well known in this country to require a minute description. It g
the height of twenty or thirty feet, & produces a considerable variety of fruit. Botan
of opinion that the wildling, or crab-apple of the wood & hedges, is the original kin
m the seed of which the apple now cultivated was first obtained. - The varieties o
species are multiplied to some hundreds, in different places, all having been first
cidentally procured from the seed or kernel of the fruit, & then increased by grafting
on crabs, or any kind of apple stocks. Notwithstanding the numerous sorts, not alon
d or fifty, are reared in the nursery. This fruit arrives at full growth in succes
l orders from July to the end of October, but comes to maturity only after gathering
several of the winter kinds may be preserved for many months - Apples are
excellent fruit for the dessert, the kitchen, & for making cydes. The following sp
most esteemed for eating are ranged according to the respective order in which th

wiper. the white jamiating. magnet apple, summer pearmain, summer queening embraiden apple, golden russet, summer white calville, silver pippin, aromatic pippin, la russettingrie, la hautbonte, royal russeting, Wheeling's russet, Shaf's russet, the spice apple, golden pippin, non-pareil, & pomme di api. Those for culinary use, are the codling, summer marygold, summer red pearmain, pomme violette Spencer pippin, the stone pippin, & baken pippin. Those most esteemed for making cyder are, the Devonshire royal wilding, red-streak apple, White sour, Herfordshire hundred leaf, John apple, or deux ames, everlasting hanger, & gennet moyle.

Among all the fruit growing in this country, says a celebrated Botanical writer, apples justly deserve the preference. In raising these useful trees for orchards or fields whether for cyder or baking, the wild crab kernels are the most suitable as they yield hardy stocks, which are better able to endure cold & coarse lands, & firmer root & produce larger trees. Where these seeds cannot be conveniently procured, the kernels of common apples may be substituted, especially with a view of engrafting them. Altho' the former do not bring forth trees bearing the same kind of apples, yet they thrive without grafting, & their hard fruit may, notwithstanding its astringent & acid properties, be advantageously converted into cyder.

Linnaeus considers the apple & the quince as species of the pear tree, or Pyrus, all the varieties of which are hardy, & will succeed in any common garden soil & planted in a free situation. They are propagated by grafting, & budding upon any kind of pear stock, occasionally upon quince, & sometimes upon white thorn stock. (For further particulars concerning this valuable fruit & the method of cultivating it see that most excellent work, Forsyth on Fruit trees.)

Class 20. Order 3.

Zea. Z. Mays. Lin. Indian Corn.

The use to which this invaluable plant are applied in the United States are well known. The articles of diet into which it enters as a component part, are various & important. Alone, it is served up in several ~~parts, are various & important~~ forms, all of which are excellent. As a strong nourishing food for horses & kine, it is hold all superior to any kind of grain. Many other articles will fatten animals, but it is corn alone whose which we depend for obtaining that solidity in the fa

cle which are so valuable in slaughter animals. I hope you know that corn
in a mill will go one third farther in feeding beasts than when given whole. The stalks &
of corn, if carefully stacked & cut have been found by a gentleman (S. Ogden) a
lar food to oats, for his coach horses. By a powerful cutting box, the stalks & blades are
mall, & given sometimes alone & sometimes with oats, & were observed to increase the spirit
ss of the animals in a very sensible manner. The reason is evident; the stalks, especial
the lower joints, abound with sugar, & was extracted during our revolutionary war, & may
of the most nutritious articles in nature. Considering the importance of the use of the
s, it is truly melancholy to see acres covered with them in winter, in some parts, instead
being bound for cattle. In the Venetian territory, according to the late Dr. Scan
ci, the blades of corn are pulled, dried, & given to cattle without injury to the crop. Scan
r. Bordley says he stripped 150 hills of corn, & cut off the tops when the corn was not
without any difference being observed between the stalks so treated, & the rest of the field
. also states, that corn is sown broad-cast, upon highly manured places near the
le, & when it reaches its highest growth, & the tassels begin to wither, the stalks are
down morning & evening, & given to cattle in the stalk. These facts may be useful
those who want fodder, & have corn; but barley straw or hay ought to be cut with
e corn, or blades & tops to prevent the beasts from becoming hoven. It has lately
been said that the cobs of corn are chopped fine by mills for cattle in Lancaster.

The blades of corn make a good coarse paper, & may be a valuable substitute
rags in a scarcity of that article. Ibid.

Triosteum perfoliatum
Tever root Horse ginseng

Genus 5. Podophyllum. Lin. Sex. syst. Polyandria.

is a solitary plant, & flowers and ripens in most part of the United States. It grows
in large patches, about Boston it is found in several places at the borders of woods in
a state of nature. It goes by the name of Tall root & wild lemon. Both when the title page is
with ocean in bloom with. With us it flowers in June & ripens its fruit in September.
The genus Podophyllum is found in the class Polyandria, & order Monogynia. Its natural
affinities place it among the Papaveraceae of Linnaeus & the Berberides of Jussieu. - This plant was
the subject of an interesting communication to the American society of Arts by Dr. Francis
Randall. The experiments made by him on its medical uses & pharmaceutical properties
are numerous & serve to throw much light on its properties. In trying the relative powers of water
& alcohol, he found that water afforded a much greater quantity of extract than alcohol.
That the spirituous extract was perfectly soluble in water, whence he infers that no oil
is in a free state exists in the plant. He discovered no volatile oil by distillation, nor any the
smallest degree of activity in water distilled from the plant. He could also find no free acid
in this vegetable. Of the different parts submitted to examination, the leaves yielded the
least quantity of soluble matter, but the root afforded that of the greatest activity. By dis-
tilling & evaporation with water an ounce of the dried stalk afforded one drachm of extract,
ounce of the dry root, two drachms & two scruples, & the same quantity of the leaves, half an
ounce. From a similar treatment of equal portions with alcohol, rather more than half
above quantities of extract were obtained.

The sensible qualities of the root were found somewhat different from
of the herb. Both of them possess a large share of bitterness, but the root has also an
acrid taste & smell somewhat approaching to that of ipecacuanha. The medicinal properties of
the Podophyllum are those of an emetic & cathartic. In the above dissertation about 40 experiments
are detailed, in which different preparations & quantities of the article were given to
sixteen persons with a view to their medicinal effects. The general inference to be made
from them is, that the herb & the root are both valuable cathartics, & an occasional effect
of alimentary canal both by emesis & catharsis. When given alone, either in powder or
infusion, the instances of failure were not many, & when combined with calomel, the
action was attended with a certainty, hardly inferior to that of jalap. The aqueous
extract of the root were likewise efficacious, & nearly in an equal degree. Prep-
[illegible]

[illegible] diaphoretic, & that of the dark purple is no [illegible]

The late Benjamin Barton of Philadelphia in his Collections towards a Materia Medica of the United States speaks of this plant as a mild & good cathartic, sometimes operating as a diuretic & in large doses as an emetic.

My own experience with this plant has not been extensive, yet sufficient to satisfy me of its medicinal power. When I have administered it, it has generally proved cathartic, a large dose, however, being requisite for this purpose, than of jalap or aloes. It has sometimes failed to produce any effect, & I am inclined to believe that its efficacy is much impaired by age. Those who may incline to employ it, will do well to renew their stock annually, & to keep the powder in close stopped phials.

A dose of the bark of the root in powder is twenty, or twenty-five grains & of the extract a somewhat smaller quantity. (Bigelow's Medical Botany)

Fig. 1. Jeffersonia Perfoliata.
Fig. 2. A flower separated.
Fig. 3. The corolla opened, showing the stamens & style.
Fig. 4. The calyx.
Fig. 5. The fruit crowned with the calyx.
Fig. 6. The same dissected to shew the three seeds.
Fig. 7. Seed.

Fig. 1. Arbutus Uva ursi, the Common wild

Fig. 2. The magnified corolla opened showing the insertion of the stamens

Fig. 3. Calyx, nectary, pistil & style magnified

Fig. 4. Calyx & nectary

Fig. 5. Berry

Fig. 1. A branch of Datura Stramonium the fruit [illegible]
with leaves & flowers

Fig. 2. Stamens & Style

Fig. 3. Transverse section of the pericarp, shewing the cells, [illegible]

[illegible] of the Stramonium when properly prepared [illegible] follows

Of the powdered leaves – 9 grains
powder seeds ½ a grain
infusion or extract 1 grain
extract of the seeds ½ a grain
tincture from 15 to 20 drops – Bigelow

Fig. 1
Fig. 2
Fig. 3
Fig. 4
Geranium Maculatum. Cross post. Geranium

Gentiana Japonica Lesh. gentian

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Panax Quinquefolia. Ginseng

Cypripedium spectabile
Gay ladies slipper

Variety of Humile
Cypripedium Humile
Low ladies slipper

Sanguinaria Canadensis
Blood Root

Fig. 1.
Fig. 2
Fig. 3
Fig. 4.
Fig. 5.
Rhus Vernix. Poison Sumach

Phytolacca Decandra. Poke. Ind. Cow berry

Daturâ Stramonium

Arum Triphyllum
Wild Turnip

Fig. 1
Fig. 2
Fig. 3
Conium Maculatum
Poison Hemlock

Cicuta Maculata

Eupatorium Perfoliatum
Thorough wort

Solanum Dulcamara. Bitter-sweet

2322

Asarum Canadense
White-Snakeroot. Wild-ginger

2. Solidago Odora
3.
4.

Hypericum Niger
Hendsone
1.
2
3
4.

2.
1.
3.
Spigelia Marylandica
Carolina Pink. Worm

Cnicus horridus
Canada Thistle

Phoyrum Tiliaeifolium
Dep. here

Magnolia Glauca
Beaver Tree. Small Magnolia

Cypripedium Pubescens

Yellow ladies slipper

Orchis Fimbriata Berk.

Tiarella Cordifolia
Mitre Wort. Cool. root

Convallaria Umbellulata
Wild lily of the valley

Hepatica Trifolia
Liverleaf
Anemone Nemorosa
Low Anemone

Chimaphila Umbellata (Eaton)
Pyrola Umbellata. (Bigelow)
Bellis Perennis
Daisy

Sisyrynchium Anceps
Blue-eyed grass
Erythronium
Dog tooth
Adder
Dens Canis
Violet
Tooth

Lythrum Verticillatum
Swamp Willow-herb
Oenothera
O. Chrysantha

Panax Trifolia
Dwarf ground nut
Scutellaria galericulata
Skullcap

Trillium Verticillata
Trillium

Castilleja Coccinea
Painted cup

Uvularia amplexifolia
Bell-wort

Sanguisorba
Burnet
Carduelis
Sanguisorbae

Marsh Rosemary. Statice Caroliniana

Miss C. Neyus del. *Sharp Michelin & Co. 17 Tremont Row*

Digitalis Purpurea
Purple Foxglove

Digitalis Purpurea
Purple Foxglove
The flower

Cymbidium Pulchellum
Graf. pinx.

Passiflora

Rosa. Tulipa. Viola
Rose. Tulip. Violet.

Lonicera Sempervirens
A Species of Honeysuckle.

Celastrus Scandens.

Pelargonium Quercifolium.

PELARGONIUM QUERCIFOLIUM—OAK-LEAVED GERANIUM.

CLASS, MONADELPHIA; ORDER, HEPTANDRIA.

NATURAL ORDER, GERANIACEÆ.

GEN. CHAR. Calyx, five parted, upper divisions much the broadest, terminating in a funnel-shaped, capillary nectary. Corol, five petalled, irregular, upper petals very showy, broader than the lower, and covered with colored veins. Arils, five, each one seeded and awned. Anthers, seven. SPEC. CHAR. Umbels, sub-many-flowered. Leaves, simulating the oak. Filaments, ascending at the apex.

In the description of the Geranium Robertianium, we reviewed the prominent characteristics of this natural and exceedingly beautiful order. This as well as the most of our conservatory species, is a native of the Cape of Good Hope. This geranium will show the celebrated spiral air vessels to very good advantage; and those who are curious to witness the secret workings of vegetation will find much to learn and admire in its structure. For this purpose, place one of the petals upon a piece of perfectly smooth and flat glass, such as is usually furnished for the transparent stage of a microscope, wet it with water, and then lay over it another flat piece of glass. Press the two firmly together, and by degrees all the air will be squeezed out of the petals and it will become transparent. With a good magnifying power all the air vessels of the veins may be distinctly observed, looking like fine threads of silver wire twisted upon a spiral spring.

It has been well remarked, that this race of plants wants but a greater capability of endurance to the cold, to make them the most valuable as well as confessedly the finest productions of the vegetable kingdom. Unfortunately none of them will endure the frost; all have perished upon which the experiments for the purpose of naturalizing them were tried, and in despite of the most persevering and trying effort, they remain as they were at first, Greenhouse plants. They are easily propagated by cuttings from any part of the plant, whether from the old woods or new; placing these in a pot filled with moderately moist earth will ensure their sprouting. The only geranium possessed of much medicinal properties, is the G. Maculatum, or Crane's bill geranium, which is indigenous to the United States, and the purple colored flowers of which are too well known to need description; its root is a highly valuable astringent. Most of the whole species are in perpetual leaf; the remainder die to the ground and come up annually, to flower and produce seed. This plant emblemizes Art, from its faculty of imitation. In it the student of chemistry, as Phillips remarks, will see how imperfect is his art in comparison with natural chemistry, which distils from the earth and conveys by distinct channels, in its small stems, all that is necessary to produce foliage, flowers, and fruit, together with color, smell, and taste, the most opposite fluids and liquids being separated only by divisions so small as scarcely to be deemed a substance. And the research into the wonders of this, as well as every other species of vegetation, may be entered into without hurting the sensibility of the most tender feeling, as plants and roots may be dissected without those disagreeable sensations, which follow the dissection of animals.

"Each secret spring, each organ let me trace,
That mock the proudest arts of human race;
Completest toil from endless source that rose,
Each worth a world; for each the Godhead shows."

Æsculus Hippocastanum.

ÆSCULUS HIPPOCASTÆNUM—HORSE CHESNUT.

CLASS, HEPTANDRIA; ORDER, MONOGYNIA.

NATURAL ORDER, HIPPOCASTANACEÆ.

GEN. CHAR. Calyx, swelled, four or five toothed. Corol, correspondingly, four or five petalled, inserted on the former, unequal, and downy. Capsule, three celled. Seeds, large solitary. SPEC. CHAR. Leaves, digitate, with seven divisions. Corol, five petalled, spreading.

This magnificent, tree as Tyas remarks, was originally brought from India, and has been naturalized in Europe for more than two centuries; in America not quite so long, as it took quite a circuitous mode of reaching us, by way of Constantinople, Vienna, Italy, France, and England. It gives the deepest and most solemn shade of any tree that is yet known, and for this purpose, as well as its extreme cleanliness and rapidity of growth, is much used in parks, avenues, streets, and to shade houses. It luxuriates in the Tuilleries in France, where it rises around the great basin in masses of incomparable beauty, and at the Luxembourg, spreads its branches in accordant pomp and splendor. It can easily be distinguished from other trees by its magnificence of size and form, were not the five or seven leaves it bears on each footstalk, spread out like a human hand, a sufficient distinction. Its blossom is certainly one of the most splendid and elegant produced by any timber tree in the country. When in full flower, its delicate spikes

of white and pink, and the deep green of its digitated leaves, make it look like a mountain of ivory and emeralds, but this effect soon gives place to its shadowy depth of coloring. In the beginning of spring, one rainy day is sufficient to cause this beautiful tree to cover itself with verdure. If it be planted alone, nothing surpasses the elegance of its stately pyramid of from fifty to sixty feet, the beauty of its foliage, or the richness of its flowers, which in May or June, make it appear like an immense lustre or chandelier all covered with pearls. Fond of ostentation and richness, it covers with flowers the grass it overshadows and yields to the idler a most delightful shade. The nuts and capsules are large, mahogany colored, and are in great request among the rising generation, in the construction of potato mills. Though they yield a fine starch, still not in sufficient quantity to make it an object in the cultivation of the tree. In our western states, they have been successfully used to poison fish. Taken as a whole they rank in the merely ornamental class, for though cattle, especially the Deer, eat the nuts with avidity, to man they are acrid and unpalatable, evidently not intended for his food. The timber is of little service, being soft and perishable. The bark it is said is of some service in tanning, and the nuts, besides the properties we have named, have a soapy quality, which the peasants in some countries employ advantageously. Its generic name is derived from Esculus, a tree which furnished the Romans with an eatable fruit. The specific name meaning Horse Chesnut, was given because the Turks grind the nuts and mix them with corn, for their steeds. It is the emblem of LUXURY.

"There avenues of chesnuts high,
With vaulted roofs conceal the sky."

Digitalis Purpurea.

LITH. OF LEWIS & BROWN, 272 PEARL ST. N.Y.

DIGITALIS PURPUREA—FOXGLOVE.

CLASS, DIDYNAMIA ; ORDER, ANGIOSPERMIA.

NATURAL ORDER, SCROPHULARIACEÆ.

GEN. CHAR. Calyx, five parted. Corol, bell form, five cleft, ventricose. Capsule, egg shaped, two celled. SPEC. CHAR. Sepals, ovate, acute. Corol, obtuse, superior lip entire. Leaves rough and somewhat spear-shaped.

This genus contains many species, not one of which is American. The generic name is derived from a word signifying thimble, in allusion to the form of the flowers. Its common name is a corruption of Fairy's Thimble. This biennial plant is a native of the mountainous and sandy regions of Europe. It has a simple stem, leafy below, covered with light down, which induced the poets to make it the emblem of YOUTH. The leaves are alternate, of an oval, spear-shape, those from the root attaining a considerable size. It flowers on a spike. Its corolla, says Lindley, is a large, inflated body, with its throat spotted with rich purple, and its border divided obliquely into five very short lobes, of which the two upper are the smaller; its four stamens are of unequal length; and the style divided into two lobes at the upper end. A number of long, glandular hairs cover the ovary, which contains two cells and a great quantity of valves.

Phillips remarks, that this beautiful but deleterious plant, which so highly ornaments the banks of hedge-rows and borders of woods, has been taken into the pleasure grounds to embellish the

shrubbery by its noble spikes of pendant flowers, which hang with such peculiar grace from the spiral branches that they may be compared to a tower of Chinese bells, balanced for the pleasure of the Zephyrs. When these flowers advance from the calyx, they are scarcely closed at the end by the four clefts of the corolla, which meet so exactly as to prevent the admission of air until the parts of fructification have arrived at maturity, at which period the lips of the flower burst open in a bell or trumpet shape, displaying the most beautiful leopard spots in the interior of the flower. In this state the corolla remains for some days, until the anthers have discharged their farina, when the mask drops off that the sun may more readily ripen the seed vessels; but as fresh flowers continue to open in a regular succession, upwards, from the month of June to September, the beauty of the plant is continued for a longer period than most other towering flowers.

The covering of the parts of fructification, reminds us of Flint's remarks, in relation to similar cases. Nature, says he, is always modest, and when the mystery is accomplished and the flower cup fecundated, the peduncle that sustains the flower turns up again towards the sky. Its bower of love was concealed; but it shows the cradle of its children.

The leaves of this plant have a nauseous, bitter taste, but uncommon scent; when dried their color should be of a lively green; a fortunate test of the care used in the process, as this plant is now coming into extensive use. When given in large doses, it has the remarkable property of almost instantly reducing the action of the heart, lowering the pulse from seventy beats in a minute to thirty, and even twenty-five; and that too without previously exciting it. There is a variety with white corollas, to be seen sometimes in the gardens, which may be obtained by retaining the seeds of the common Foxglove a year without sowing them. Cowley says;

> The Foxglove on fair Flora's hand is worn,
> Lest while she gathers flowers, she meets a thorn.

Lilium Canadense.

LITH. OF LEWIS & BROWN, 272 PEARL ST.

LILIUM CANADENSE—COMMON YELLOW LILY.

CLASS, HEXANDRIA ; ORDER, MONOGYNIA.

NATURAL ORDER, LILIACEÆ.

Gen. Char. Corolla, six petalled, bell-shaped; with a longitudinal, nectarious line. Capsules, the valves connected by cancelled hair. Spec. Char. Leaves in whorls. Flowers, terminal, drooping, with open petals.

The whole Lily tribe is readily distinguished by the large size of its flowers, some specimens of which are very striking in this respect. Dr. Wallich tells us of the gigantic Lilies of Napal, one species of which grows ten feet high, with flowers large in proportion. During the months of June and July, and sometimes until the middle of August, the larger portion of our meadows and waste moist lands, are ornamented with this flower. It has a green stem, rising to the height of from fifteen to forty inches, with lance-shaped leaves, surrounding it in whorls. Many times this stem bears but a single flower, though most generally three, on the stem; their bells hang pendulous, of a yellow color on the outside, but spotted within; the petals a very little turned outwards. It is perennial in its duration. The beauty and delicacy of the Lily, Phillips remarks, has made it celebrated by the writers of all ages, from the time of Solomon to the present day. It was regarded by Christ himself, as being more splendid than the great King of Jerusalem, in all his gorgeous apparel, and on this account, we

cannot behold the Lily without feeling a kind of reverence for the flower, mixed with our admiration for its elegance of form and purity of color. Jupiter wishing to render Hercules immortal, that he might rank him among the divinities, prevailed on Juno to take a deep draught of nectar, prepared as we presume by Somnus, as it is related that the Queen of the Gods fell immediately into a profound slumber, and that Jupiter then placed the infant Hercules to her breast, in order that the divine milk might enter his frame and so cause his immortality. The infant enjoying the delights of the celestial breast, drew the milk faster than he could swallow, some drops of which therefore fell to the earth, from which this flower immediately sprang up; and from this fable it was called Juno's Rose. Alcaib tells us, in his celebrated and elegant emblems, that Celestial Beauty is represented surrounded by a glory, half of the head hidden in the clouds, holding a Lily in one hand and a compass and ball in the other. As all nations agree in making the Lily the symbol of Purity and Modesty, it is the fit attribute of beauty; and perhaps no inhabitants of the earth blend it so happily with the Rose as our own fair daughters. In the Hebrew language, the name Susannah signifies a Lily. The English name is derived from the Latin, as is also the French Lis, the Spanish Lirio, the German Lilie, the Italian Giglio, and the Dutch Gilgen, seem to be corruptions of the same word. The Lily genus appears to have been as great favorites with the ancient as the modern nations; in the wedding ceremonies of the modern Greeks, the priest is supplied with two chaplets of Lilies and ears of corn, which he places on the heads of the bride and bridegroom, as emblems of Purity and Abundance. As the Canadian Lily is one of our own flowers, and not improved by cultivation, directions for that purpose would be unnecessary.

Dahlia Superflua

LITH. OF LEWIS & BROWN, 272 PEARL S N Y

DAHLIA SUPERFLUA—DAHLIA.

CLASS, SYNGENESIA; ORDER, POLYGAMIA SUPERFLUA.

NATURAL ORDER, COMPOSITÆ.

GEN. CHAR. Root, tuberous. Leaves, broad, lanceolate, cut on the edges. SPEC. CHAR. Generally six feet in height, with broad foliage and large flowers. Rays fertile.

The generic name of this plant was bestowed by Linnæus in honor of Andrew Dahl, a Swedish botanist. It contains few species, but such has been its reception by the public, that gardeners have bestowed an immense amount of pains in its cultivation, and the varieties produced in consequence, are almost endless. Phillips remarks, that this splendid addition to the autumnal parterres of the Old World was unknown till 1789, when it was sent to Spain from Mexico, where it grows wild, in sandy meadows. It was lost at first in England, but some roots and seeds being afterwards obtained from France, that country partook of the Dahlia-mania of the nineteenth century, which although less dangerous in its effects, was not less general than the Tulip-mania by which Europe was so much affected in the seventeenth century; and it was finally left to English capital and perseverance to illuminate the northern part of the globe, by the full brilliancy of these floral luminaries, which now shine as conspicuously in our groves and gardens as gas in our cities. The ingenuity of the florist has never appeared more conspicuous than in the treatment

of this Mexican plant, as through their art, these flowers have had their petals doubled and quadrupled until they have become as full as the China Aster or Rosa Centifolia, whilst their colors have even been more increased than their petals, and display a richness which rivals that of the gaudy Tulip, or the finest tints which the silk dyer is able to give to glossy velvet. The most beautiful varieties have been raised from the seeds of the single purple Dahlia; these are increased by two different modes; First, by cuttings, which should be taken from the rootshoots in the spring, or from young shoots in the early part of the summer, these when cut off smoothly, in the middle of a joint, are to be planted in light sandy earth on a moderately hot bed, and covered with glasses. The top leaves of the cuttings should be removed when planted; tubers will thus be formed, which will produce flowers during autumn. The second mode is by grafting the shoots of valuable plants on the tubers of the more common kind.

Dahlias should be planted in open situations and in a rich loamy soil; the full grown roots to be put in the ground early in spring, at the place where they are to flower. The most admired are those which throw out their branches like a shrub, and are prolific of flowers, having short footstalks; the blossom should be clear, distinct in color and fully expanded. In examining the florets of this species, it will be seen that the filaments of the stamens are elastic, which by extension admit of the anther being protruded above the floret, by the impulse of the stigmas from within; as charged with pollen they advance to their station through its five valved membrane, which opposes their outlet at the summit, withdrawing the same to its place when these have passed. The roots, which are tuberous, resembling a sweet potato, are used as an aliment by the Mexicans; these should be taken up in October, and preserved through the winter in boxes of dry sand, placed where the frost cannot penetrate. Dahlias have the best appearance when planted on lawns, forming clumps distinct from any other plant. They emblemize For ever thine.